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AUTHOR	Henke, Robin R.; And Others
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ABSTRACT

This study used data from the ongoing Baccalaureate and Beyond Longitudinal Study to examine college graduates' preparation for and entry into teaching, as well as their movement into and out of the profession over time. Text, seven figures, and 15 tables detail the data on the "teacher pipeline"; examine who enters it (such as race/ethnicity and gender); provide data on undergraduate academic experiences of teachers including major field of study, type of postsecondary institution attended, college entrance examination scores and grade point averages, and undergraduate and advanced course taking; and also look at early teaching experiences. The report reaches the conclusion that graduates who enter the teacher pipeline differ both demographically and academically from those not in the pipeline, and notes that these differences have tended to overshadow differences among types of teachers. The report lays the groundwork for future studies analyzing persistence in teaching, and voices the hope that further development of empirical criteria will allow better evaluation of teacher postsecondary education and teacher professional development. Statistical data are presented in 27 compendium tables. Also included are two appendixes: one a glossary that defines the variables, and the other containing technical notes and explaining the methodology. (CH)

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NATIONAL CENTER FOR EDUCATION STATISTICS

Statistical Analysis Report **September 1996**

Baccalaureate and Beyond Longitudinal Study

Out of the Lecture Hall and Into the Classroom: 1992–93 College Graduates and Elementary/Secondary School Teaching

With an Essay on Undergraduate Academic Experiences

B&B

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Robin R. Henke
Sonya Geis
Jeannifer Giambattista
MPR Associates, Inc.

Paula Knepper
Project Officer
National Center for Education Statistics

U.S. Department of Education
Office of Educational Research and Improvement NCES 96-899

U.S. Department of Education
Richard W. Riley
Secretary

Office of Educational Research and Improvement
Sharon P. Robinson
Assistant Secretary

National Center for Education Statistics
Pascal D. Forgione, Jr.
Commissioner

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Aurora D'Amico
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Foreword

The 1993 Baccalaureate and Beyond Longitudinal Study (B&B:93) sampled students who completed bachelor's degrees in the 1992–93 academic year. The first followup survey, conducted in 1994, provides information on the activities of these bachelor's degree recipients in the year after graduation. Compared with previous studies of high school age cohorts, B&B:93 offers several advantages for studying graduates' experiences as undergraduates, their graduate education, and their labor market experience. First, B&B:93 begins with a nationally representative sample of bachelor's degree recipients, regardless of graduates' age at degree completion. With the proliferation of part-time attendance and the increasing number of college students who are older than the traditional 18- to 22-year-old population, this affords a more representative cross-section of bachelor's degree completers than would be possible with a sample based on an age cohort. Second, by sampling degree completers B&B:93 avoids sources of sample attenuation that occur with high school cohorts (not all members of a high school cohort attend college; those who do attend differ in timing, intensity, and continuity of enrollment; and not all who attend college complete a bachelor's degree).

In particular, B&B:93 offers an important opportunity to study college graduates' participation in the teaching profession. For many years the National Center for Education Statistics (NCES) conducted the Recent College Graduates Study (RCG) to provide information on college graduates' entry into and preparation for teaching. B&B:93 goes beyond RCG by allowing examination of not only graduates' participation in teaching one year after graduation but also their movement into and out of the profession over time. With the proliferation of alternative certification programs and increasing interest in teaching among established professionals in other fields, study of who enters teaching, when, and why becomes more important to policymakers and educators. This report lays the groundwork for future studies by presenting data on who, among 1992–93 graduates, entered teaching and on their academic experiences as undergraduates. Analyses of future data collections will study both the persistence in teaching, or lack thereof, among those who entered just out of college as well as later entry by other graduates.

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Several U.S. Department of Education staff also made important contributions to this report. Sharon Bobbitt of the Office of Reform Assistance and Dissemination participated in early and important decisions regarding the groups of interest in this report. Paula Knepper, the B&B:93 COTR at NCES, not only participated in those decisions but also contributed to the quality of the report through all its revisions. C. Dennis Carroll and Mary Frase, also of NCES, reviewed the report and made many suggestions that improved the final product. The authors also appreciated the useful comments of Robert Burton and Peter Stowe of NCES, Donna Gollnick of the National Council for Accreditation of Teacher Education, and Meredith Ludwig of the Association of Schools, Colleges, and Universities.

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Undergraduate Academic Experiences of 1992-93 College Graduates

Introduction

In the early 1980s, two concerns about elementary and secondary school teachers drew the attention of policymakers and the public at large: the supply of teachers, particularly whether the United States would experience a shortage of teachers; and the academic ability and qualifications of those who became teachers. Some warned that fewer talented college graduates were entering or remaining in teaching than in previous generations, and that in the face of shortages schools would be forced to hire less qualified teachers in order to fill classrooms.[1] Others were less concerned with a shortage of teachers than with teacher qualifications, particularly in light of school reform efforts. Did teachers have the knowledge and skills necessary to teach the material reformers demanded in the ways that reformers wanted?[2]

These concerns have raised questions and contributed to debate regarding teacher preparation, licensure, and the conditions of teaching. Should requirements for entry into teacher education programs, such as test scores or grade point averages, be increased? What should potential teachers study in teacher education programs? Should certification requirements for new teachers demand more rigorous courses, particularly in science and mathematics, or include professional examinations such as the National Teacher Examination (NTE)? Would increased teacher salaries lead those with stronger academic qualifications to choose teaching? Would mechanisms for differentiating teachers according to their expertise encourage teachers to remain in the profession?[3]

In addition to concerns about teacher supply and quality, educators, policymakers, and the public have also been concerned for some time about the growing discrepancy between the proportions of minority school children and minority teachers.[4] The importance of increasing the proportion of teachers who are of minority background has been argued from a number of vantage points. Many assert that minority children will be more motivated to succeed in school if they see minority adults—teachers—who have succeeded in school and earned positions of responsibility.[5]

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[1] Linda Darling-Hammond, *Beyond the Commission Reports: The Coming Crisis in Teaching* (Santa Monica, CA: RAND Corporation, 1984).

[2] David C. Berliner and Bruce J. Biddle, *The Manufactured Crisis: Myths, Fraud, and the Attack on America's Public Schools* (Reading, MA: Addison-Wesley Publishing Company, 1995); Phillip C. Schlechty and Victor S. Vance, "Recruitment, Selection, and Retention: The Shape of the Teaching Force," *Elementary School Journal* 83 (4) (1983): 469–487.

[3] Phillip C. Schlechty and Victor S. Vance, "Recruitment, Selection, and Retention: The Shape of the Teaching Force," *Elementary School Journal* 83 (4) (1983): 469–487.

[4] Peter Applebome, "Is Experience the Best Teacher?" *New York Times*, (January 7, 1996), Section 4A, 22; Carnegie Forum on Education and the Economy, *A Nation Prepared: Teachers for the 21st Century* (New York: 1986); Education Commission of the States, *New Strategies for Producing Minority Teachers* (Denver: 1990); Joint Center for Political Studies, *Visions of a Better Way–A Black Appraisal of Public Schooling* (Washington, DC: 1989).

[5] A.V. Adair, *The Illusion of Black Progress* (Lanham, MD: University Press of America, 1984); Patricia A. Graham, "Black Teachers: A Drastically Scarce Resource," *Phi Delta Kappan* 68 (8) (1987): 598-605; J. Stewart, K.J. Meier, R.M. LaFollette, and R.E. England, "In Quest of Role Models: Change in Black Teacher

Beyond the call for minority role models, others have suggested that minority teachers are more likely to teach in ways that promote the achievement of minority students. Because minority teachers have participated in minority groups' unique cultures, these authors argue, they are more likely than white teachers both to understand the norms and styles of communication of minority children and to structure their classrooms and lessons in ways that are congruent with minority cultures. Whether practiced by minority or majority teachers, culturally relevant pedagogy, as it is termed, has been found to be more successful with minority children than traditional classroom routines. Therefore, increasing the proportion of teachers who are likely to practice it is expected to improve minority students' achievement.[6]

Thus, attracting college graduates with strong academic skills and preparation, particularly those of minority racial-ethnic backgrounds, into teaching and retaining them in the profession are important policy concerns, and the 1993 Baccalaureate and Beyond study (B&B:93) offers an important opportunity to begin to study these issues both now and into the 21st century.[7] The data collected in 1994 (B&B:93/94), the first wave of B&B:93 data collection, permit analysis of new college graduates' participation in teacher preparation and in teaching. In the future, B&B:93 data will allow researchers to compare those who entered teaching immediately after graduating from college with those who enter later, determine when and why teachers leave the profession, and study patterns of reentry into teaching.

Thus far, B&B:93/94 data indicate that patterns of early participation in teaching among subgroups of 1992–93 college graduates were similar to those of previous cohorts. As the essay that follows demonstrates, women and white graduates were more likely than men and minority graduates both to have taken any of several steps toward teaching and to have expected to teach in the future. Although graduates with college entrance examination scores in the top quartile were less likely than other college graduates to take steps toward teaching, graduates with higher GPAs were more likely to enter the teacher pipeline. Further analysis of the B&B:93 data indicate that this apparent discrepancy may be explained by differences in course-taking patterns: graduates more inclined to teach were more likely to have taken education courses, in which most students earned higher grades, and less likely to have taken courses in advanced mathematics or calculus, in which most students earned lower grades.

After describing the teacher pipeline, through which college graduates enter and exit teaching at various points in time, the essay focuses on 1992–93 college graduates who were first-time entrants into the teacher pipeline. Its first section examines the rate of entry into and progress through the teacher pipeline among 1992–93 college graduates of varying demographic characteristics, asking "Who took steps toward a teaching career?" In the second section the academic experiences of those who taught, only prepared to teach, or

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Representation in Urban School Districts, 1968–1986," *Journal of Negro Education* 58 (1989): 140-152.

[6] S.H. King, "The Limited Presence of African-American Teachers," *Review of Educational Research* 63 (2) (Summer 1993): 115–149. Others have argued that the empirical evidence, as yet, does not warrant these claims (See, for example, C.J. Cizek, "On the Limited Presence of African American Teachers: An Assessment of Research, Synthesis, and Policy Implications," *Review of Educational Research* 65 (1) (Spring 1995): 78–92).

[7] In this report the study as a whole, including present and future data collections, is referred to as B&B:93, and the followup data collection conducted in 1994 is referred to as B&B:93/94.

were only considering teaching are compared with those of other recent graduates, asking questions such as "How did those more inclined to teach compare academically with those less so inclined?"

The essay concludes by looking at 1992-93 graduates' expectations for teaching in the future. In particular, the essay discusses the relationship between new teachers' experiences in the classroom and their plans to continue teaching in the near and long terms. Additional data regarding teaching among the class of 1992-93 are presented in the table compendium following the essay.

What is the "Teacher Pipeline"?

Unlike professions that require years of technical training, college graduates may become elementary or secondary teachers or leave teaching for other occupations with relative ease. Some students decide that they want to teach before they enter college or while they are undergraduates, and therefore prepare for teaching while in college by fulfilling the education course and student teaching requirements necessary for certification to teach in their state. Although education remains the most popular undergraduate major among new teachers, an increasing number of college students who prepare to teach major in an academic discipline and fulfill the education course and student teaching requirements for certification in addition to the degree requirements of their undergraduate major.[8]

Graduates who prepared to teach must then consider whether to teach immediately following graduation. Some do choose to teach immediately, while others wait to gain other job experience or obtain further education, often a master's degree, before teaching. Still others decide that teaching is not what they want to do and enter other occupations. Also, those who do teach may choose to leave after as little as 1 year.

In contrast with those who prepared to teach, most undergraduates are either uninterested in teaching or less certain that they would choose teaching as a long-term career. Some college graduates who do not prepare to teach pursue teaching positions in private schools, which often do not require certification for employment as teachers. Others obtain emergency or temporary teaching certificates in order to teach in public schools for a year or two, usually while taking the coursework necessary to obtain regular certification. Moreover, in the last decade or so alternative certification programs have been designed to make the transition into teaching even easier for college graduates who did not prepare to teach as undergraduates.[9]

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[8] U.S. Department of Education, National Center for Education Statistics, *New Teachers in the Job Market, 1991 Update*, NCES 93-392 (Washington, DC: 1993).

[9] C. Emily Feistrizer and David T. Chester, *Alternative Teacher Certification: A State-by-State Analysis, 1995* (Santa Fe, NM: National Center for Education Information, 1995).

Thus, the supply of educators that staff the nation's classrooms depends upon decisions regarding teaching as an occupation that college students and graduates make not only while undergraduates but throughout the course of their adult lives.[10]

B&B:93 will examine, in this report and in subsequent analyses, the class of 1992-93 as they enter, leave, and reenter the teaching profession in the years following their college graduation. Although the majority of 1992-93 graduates were first-time bachelor's degree recipients and were too young to have taught before receiving their 1992-93 degrees, others may have prepared to teach over the course of earning an earlier bachelor's degree or taught previously with or without certification.[11] These graduates had, at the time they received their degrees, already entered the teacher pipeline and had varying experiences of it at different points of time. So as not to confound decades-old experiences of teaching or teacher preparation with contemporary experiences, it was important to be able to distinguish new from previous entrants.

Consequently, the first step was to identify those 1992-93 bachelor's degree recipients who had taught before completing the 1992-93 degree or who had been certified to teach 1 year or more before receiving the 1992-93 bachelor's degree. Overall, of those who received bachelor's degrees in 1992-93, only about 3 percent had taught before obtaining their 1992-93 degrees or had been certified 1 year or more before receiving these degrees (figure 1). Given the small size of the sample representing these graduates, it was not possible to study these graduates separately from the others, and therefore they were excluded from the study.

The remaining 97 percent of graduates were considered eligible to enter the teacher pipeline, that is, to take some step toward entering the teaching profession, and these graduates make up the population discussed in this report. One year after receiving the baccalaureate, graduates could have entered the pipeline in one of three ways:

- by teaching in the year following receipt of the 1992-93 bachelor's degree;
- by having prepared to teach, either by student teaching while at the degree-granting institution, or by earning a teaching certificate less than 1 year before college graduation or within 1 year after it;
- by reporting, 1 year after receiving the 1992-93 bachelor's degree, that they were considering teaching.

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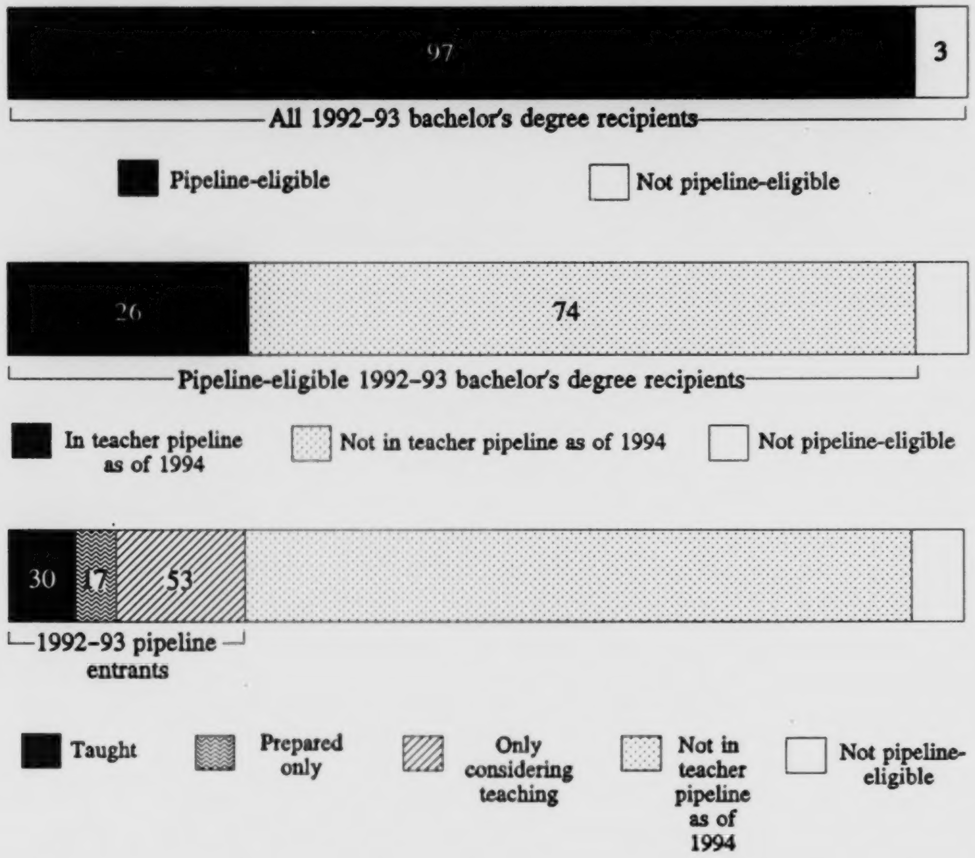
[10] American Association of Colleges for Teacher Education, *Teacher Education Pipeline: Schools, Colleges, and Departments of Education Enrollments by Race and Ethnicity* (Washington, DC: 1988); American Association of Colleges for Teacher Education, *Teacher Education Pipeline II: Schools, Colleges, and Departments of Education Enrollments by Race and Ethnicity* (Washington, DC: 1990); American Association of Colleges for Teacher Education, *Teacher Education Pipeline III: Schools, Colleges, and Departments of Education Enrollments by Race, Ethnicity, and Gender* (Washington, DC: 1994).

[11] U.S. Department of Education, National Center for Education Statistics, *A Descriptive Summary of 1992-93 Bachelor's Degree Recipients: One Year Later*, NCES 96-158 (Washington, DC: July 1996).

Figure 1—Percentage distributions of 1992–93 bachelor's degree recipients by whether they were pipeline-eligible, by whether they were in the teacher pipeline, and by their status in the teacher pipeline: 1994



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

As figure 1 also illustrates, by 1994 approximately one-quarter of pipeline-eligible 1992–93 graduates had entered the teacher pipeline. Of those who had entered, 30 percent had done so by teaching in that year (teachers), 17 percent by preparing to teach but not teaching (prepared only), and 53 percent by reporting in 1994 that they were only considering teaching (considering). The remaining three-quarters of the graduating class did not report that they were considering teaching, had prepared to teach, or had taught, and therefore for the purposes of this analysis are considered outside the teacher pipeline.

Analyses of data to be collected in the future will study the rates at which each group of pipeline-eligible graduates enters the teacher pipeline and the pattern of entry, departure, and reentry within each group, recognizing that those who were not considering teaching in 1994 may enter at a later date. However, because these graduates were not considering teaching in 1994, this analysis excludes them from the teacher pipeline and distinguishes among the three pipeline groups in order to make comparisons among groups who in 1994 were more or less inclined to teach. Thus, the remainder of this essay discusses the demographic and academic characteristics of these three groups of graduates, comparing them with each other and with those who had not entered the pipeline.

Who Entered the Teacher Pipeline?

Historically, most teachers have been women and/or from white, non-Hispanic backgrounds, and discussion has centered around whether these limitations on the demographic makeup of teachers constitute a problem, and, if so, how to rectify it.[12] The racial–ethnic makeup of the teaching pool in particular has often been the subject of analysis and debate in the past, and a discussion of race–ethnicity is therefore central to this section of the report.

Background

Data from multiple sources confirm many authors' claims that the disparity between the proportions of students and teachers who are of minority background is increasing. The Elementary and Secondary School Civil Rights Survey, the Schools and Staffing Survey (SASS), and U.S. Department of Education data cited by the American Association of Colleges for Teacher Education (AACTE) indicate that the proportion of U.S. school children who are of minority background has increased in recent years.[13] The SASS data are the most recent of these, and they show that approximately 32 percent of children in the nation's schools were of minority racial or ethnic background in 1993–94.[14] According to a time series analysis of Civil Rights Surveys, the percentage of the nation's students who were of minority background increased 8 percentage points between 1976 and 1990.[15]

At the same time, the SASS data, NCES's Recent College Graduates Study (RCG), and data on teacher education enrollments collected by AACTE all indicate that the proportions of practicing teachers, newly qualified teachers, and would-be teachers who are of minority backgrounds are less than half that of minority schoolchildren. Moreover, whereas the proportion of minority children has increased, the proportion of minority teachers has been notably stable. Surveys conducted by the National Education Association between 1971 and 1991 indicate that the proportion of teachers who were white declined by only 1.5 percent, from 88.3 percent to 86.8 percent, during this time period. SASS and AACTE data also indicate that although the proportions of minority teachers and education students have increased since the late 1980s, that increase remains slight (about 1 percent) and that the proportions of minority teachers and education students hover around 13 percent.[16]

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[12] Peter Applebome, "Is Experience the Best Teacher?", 22; Carnegie Forum on Education and the Economy, *A Nation Prepared: Teachers for the 21st Century*; Education Commission of the States, *New Strategies for Producing Minority Teachers*; Joint Center for Political Studies, *Visions of a Better Way—A Black Appraisal of Public Schooling*.

[13] The Schools and Staffing Survey (SASS) samples schools, teachers, principals, and school districts nationwide to gather data on the programs offered and people who work in the nation's schools. It provides a comprehensive data source on teachers in elementary and secondary schools, including information on their preservice education and professional development.

[14] American Association of Colleges for Teacher Education, *Teacher Education Pipeline III*; U.S. Department of Education, National Center for Education Statistics, *Schools and Staffing in the United States: A Statistical Profile, 1993-94*, NCES 96-124 (Washington, DC), forthcoming.

[15] U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1994*, NCES 94-149 (Washington, DC: 1994).

Thus the questions of why and when some groups of college students choose to teach while others do not has become increasingly important to those interested in achieving a diverse teaching staff. Although small sample sizes prevent some apparent differences from being statistically significant, in general, the data discussed below indicate that Asian/Pacific Islander and black, non-Hispanic graduates were less inclined to teach than were white, non-Hispanic or Hispanic graduates. Also, continuing historical trends, women were more likely than men to be attracted to teaching.

Entering the Teacher Pipeline

Differences by gender and race–ethnicity are apparent when one examines 1992–93 college graduates' first point of entry into a teaching career. For example, Asians and Pacific Islanders were significantly less likely than other racial–ethnic groups to be in the teacher pipeline (table 1). Ten percent of Asian/Pacific Islander graduates, compared with 27–34 percent of other graduates, were at least considering teaching in 1994. The gender difference was equally striking: whereas 1 in 3 women eligible to enter the teacher pipeline had entered it, 1 in 5 eligible men had done so.

Location in the Pipeline

While black, non-Hispanic graduates were no less likely than any other racial–ethnic group to enter the teacher pipeline, they were more apt to enter it by only considering teaching than by preparing to teach or teaching. To illustrate, 74 percent of black, non-Hispanic graduates in the pipeline were only considering teaching, significantly more than their Hispanic (54 percent) and white, non-Hispanic (50 percent) peers (table 1 and figure 2). Furthermore, black, non-Hispanic graduates in the pipeline prepared to teach half as often as their Hispanic or white, non-Hispanic peers (17 percent versus 35–43 percent) (table 2).

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[16] American Association of Colleges for Teacher Education, *Teacher Education Pipeline*; American Association of Colleges for Teacher Education, *Teacher Education Pipeline II*; American Association of Colleges for Teacher Education, *Teacher Education Pipeline III*; U.S. Department of Education, National Center for Education Statistics, *Schools and Staffing in the United States: A Statistical Profile, 1993–94*; National Education Association, "Status of the American Public School Teacher, 1990–91," cited in U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics: 1995*, NCES 95-029 (Washington, DC: 1995); U.S. Department of Education, National Center for Education Statistics, *New Teachers in the Job Market, 1991 Update*.

Table 1—Percentage of 1992–93 bachelor's[1] degree recipients who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by gender and race–ethnicity: 1994

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Considering only	Prepared only	Taught
Total	26.1	52.8	17.1	30.1
Gender				
Male	19.8	63.0	13.4	23.6
Female	31.7	47.2	19.1	33.7
Race–ethnicity				
Minority	24.4	65.5	8.3	26.1
American Indian/Alaskan Native	35.4	—	—	—
Asian/Pacific Islander	9.6	59.6	20.9	19.5
Black, non-Hispanic	33.4	74.2	5.6	20.2
Hispanic	27.5	53.8	8.2	38.0
White, non-Hispanic	26.5	50.3	18.8	31.0

—Too few cases for a reliable estimate.

[1] Excludes those who either taught in elementary or secondary schools before receiving the 1992–93 bachelor's degree or had been certified to teach 1 year or more before receiving the 1992–93 bachelor's degree.

[2] Graduates were defined as having entered the teacher pipeline if they had first taught since receiving the 1992–93 bachelor's degree, prepared to teach during or since the 1992–93 degree, or were considering teaching at the time of the B&B:93/94 interview.

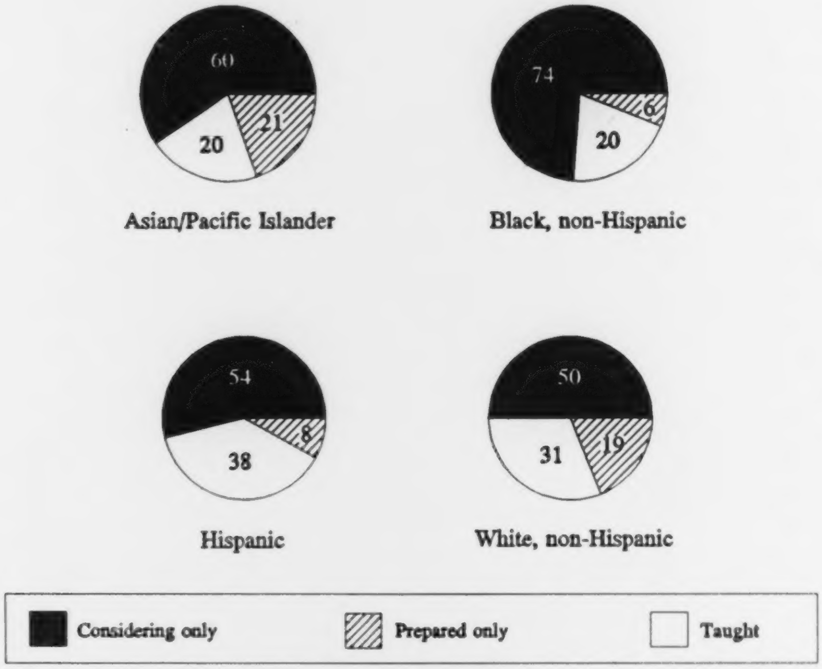
NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

In contrast, the rate at which graduates in the pipeline applied for teaching positions, the rate at which those who applied for teaching positions received offers, and the rate at which those who received offers accepted them did not vary with their racial–ethnic backgrounds (table 2). Thus, although both Asians or Pacific Islanders and black, non-Hispanics were less likely to teach, the points at which these groups opted out of teaching differed. Asians and Pacific Islanders were less likely to be in the teacher pipeline in the first place. Black, non-Hispanic graduates were no less likely than members of other racial–ethnic groups to consider teaching as an occupation, but were less likely to pursue it by preparing to teach or by teaching in the year following college graduation.

Gender differences in preparing to teach, applying for teaching positions, and teaching were consistent with teaching's history as a female-dominated profession. Forty-seven percent of women in the pipeline prepared to teach, compared with 28 percent of men (table 2), and 1 in 3 women in the pipeline actually taught, whereas about 1 in 4 men did so (table 1). As was the case for race–ethnicity, there were no significant differences between men and women in the percentage who received teaching job offers or the percentage who accepted them.

Figure 2—Of 1992–93 bachelor's degree recipients* in the teacher pipeline, percentage distribution according to status in the pipeline, by race–ethnicity: 1994



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*Excludes bachelor's degree recipients who had taught before receiving 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: The sample size for American Indian/Native Alaskan respondents was too small for reliable estimates. Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table 2—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who prepared to teach, applied for a teaching position, were offered a teaching position, and accepted a teaching position, by gender and race-ethnicity: 1994

	Percent prepared to teach[1]	Percent applied for teaching position[2]	Of applicants, percent offered a teaching position[2]	Of those offered, percent accepted teaching position[2]
Total	40.1	46.7	72.0	90.0
Gender				
Male	28.3	35.5	71.9	88.0
Female	46.5	52.8	72.0	90.8
Race–ethnicity				
Minority	25.3	41.6	74.8	84.2
American Indian/Alaskan Native	—	—	—	—
Asian/Pacific Islander	32.0	29.8	—	—
Black, non-Hispanic	17.1	38.0	71.5	77.7
Hispanic	35.0	50.2	79.3	89.2
White, non-Hispanic	42.9	47.8	71.5	90.9

—Too few cases for a reliable estimate.

[1] Includes those who prepared to teach regardless of whether they had taught. Does not include those who taught but did not prepare to teach.

[2] Includes applications for positions as teacher aides and substitute teachers. Because these positions were not counted as "teaching" in the pipeline variable, respondents who were offered and accepted these positions were not categorized as having taught in the pipeline variable.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Schools in Which They Taught

As discussed above, who became a teacher—or was even considering teaching—varied according to several demographic characteristics. Not surprisingly then, the sector and level of the schools in which 1992-93 college graduates taught also varied with graduates' race-ethnicity and gender. Overall, about 84 percent of 1992-93 graduates who taught worked in public schools, and the balance worked in private schools (table 3), figures that are comparable to the distribution of teachers nationally in 1993-94.[17] Minority graduates were more likely than white graduates to teach in public schools. Two-thirds of women who taught worked in elementary schools, compared with two-fifths of men. Similarly, one-quarter of women taught in secondary schools, whereas over half of men who taught worked in secondary schools.

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[17] Estimates from the 1993-94 administration of the Schools and Staffing Survey (SASS) indicate that about 87 percent of teachers taught in public schools and 13 percent in private schools.

Table 3—Percentage distributions of 1992–93 bachelor's degree recipients who were new teachers according to the sector and level of the schools in which they taught, by gender and race–ethnicity: 1994

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Total	84.3	15.7	59.6	34.1	6.3
Race–ethnicity					
Minority	92.4	7.6	69.8	28.6	1.6
American Indian/Alaskan Native	—	—	—	—	—
Asian/Pacific Islander	—	—	—	—	—
Black, non-Hispanic*	—	—	—	—	—
Hispanic	91.2	8.8	74.3	25.7	0
White, non-Hispanic	83.3	16.7	57.9	35.2	6.9
Gender					
Male	86.4	13.6	40.8	55.4	3.7
Female	83.5	16.5	66.0	26.1	7.3

—Too few cases for a reliable estimate.

*Although 33 percent of black, non-Hispanic graduates entered the pipeline, only 20 percent taught, so tables that include only teachers have too few black, non-Hispanics to report estimates.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Expectations for the Future

New teachers exit the teacher pipeline at various times and for various reasons, including pursuing further education or changing careers altogether. The longitudinal nature of B&B:93 will allow tracking of these graduates' moves in and out of the teaching profession, but in the meantime, their expectations provide an early indicator of their commitment to teaching as a profession.

In general, new teachers' expectations for teaching in the future followed patterns similar to those observed regarding their entrance into teaching in the year after receiving their bachelor's degrees. For example, about 62 percent of black, non-Hispanic new teachers expected to be teaching in 2 years, whereas 78 percent of Hispanic teachers and 76 percent of white, non-Hispanic new teachers had this expectation (table 4). Likewise, when asked about their plans regarding teaching in the long term, 25 percent of black, non-Hispanic graduates in the pipeline responded that they expected to be teaching, compared with 45 percent of their white, non-Hispanic peers. Similarly, among nonteachers in the teacher pipeline, Asian/Pacific Islanders and black, non-Hispanics were less likely than white, non-Hispanics to expect to teach in the long term.

Differences between men's and women's expectations for teaching in the future were also consistent with those found with respect to entering the pipeline and teaching. Whereas about half of the women in the teacher pipeline expected to be teaching in 2 years or in the long term, about 30 percent of men expected to be teaching at either of these points in time.

Among new teachers, 81 percent of women expected to be teaching in 2 years, compared with 62 percent of men. Women were also more likely than men to expect to teach in the long term (69 percent compared with 52 percent).

Given these expectations, it appears that among this cohort of college graduates, the historical trends in minority and female participation in teaching are not likely to change. Analyses of future B&B:93 data will indicate just how accurate these new graduates' expectations for the future were, and whether graduates who begin teaching at a later point have similar demographic characteristics to those who began teaching within one year of their degree completion. Let us now turn from the question of who entered the teacher pipeline to how those who did enter compared with those who did not in terms of their undergraduate academic experiences.

Table 4—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who planned to be teaching in two years and in the long term, by gender and race-ethnicity: 1994

	Expects to be teaching in 2 years			Expects to be teaching in long term		
	Total	Teachers	Non-teachers	Total	Teachers	Non-teachers
Total	44.8	75.5	30.9	42.9	63.3	33.8
Gender						
Male	30.2	61.5	20.0	28.7	51.7	21.5
Female	52.8	80.9	37.8	50.8	67.8	41.7
Race–ethnicity						
Minority	38.0	70.1	26.3	31.4	48.3	25.5
American Indian/Native Alaskan	—	—	—	—	—	—
Asian/Pacific Islander	24.5	—	15.4	25.6	—	17.5
Black, non-Hispanic	32.2	61.8	24.2	24.6	45.7	19.3
Hispanic	53.0	77.9	37.5	44.3	48.2	42.0
White, non-Hispanic	46.1	76.2	31.9	45.1	65.4	35.6

—Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Undergraduate Academic Experiences and Teaching

Background

Although the academic achievement and ability of teachers have been questioned for well over 100 years, the early 1980s occasioned a renewed interest in the topic.[18] In the last decade or so, this issue has been studied from several vantage points. Studies have compared the achievement test scores and grade point averages of college students who were interested in teaching with those of other students, education majors with noneducation majors, teachers with nonteachers, and those who continued to teach with those who left the profession. The findings have been fairly consistent: college students interested in teaching, teacher education students, teachers, and those who remain in teaching tend to have somewhat lower scores on standardized tests—including the ACT or SAT, the NTE, and the High School and Beyond (HS&B) achievement tests—than their counterparts who were less inclined toward teaching. On the other hand, studies that employ high school or college grade point averages as the measure of achievement consistently report that those more inclined toward teaching achieve at levels equal to or higher than those less inclined.[19]

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[18] W. Timothy Weaver, *America's Teacher Quality Problem: Alternatives for Reform* (New York: Praeger Publishers, 1983).

In addition to possible shortages of teachers with high academic achievement, policymakers and researchers have been concerned in particular about the potential for a shortage of teachers who have studied high-level mathematics and science. Because college graduates with degrees in mathematics, computer science, and the natural sciences have greater earning power in private enterprise than they do as schoolteachers, it is believed, these graduates are less likely to be interested in teaching (especially as a long-term career), to prepare to teach, to enter teaching, or to remain in teaching for an extended period of time.[20]

As the data presented in the remainder of this section indicate, earlier findings regarding the academic achievement of those who were considering teaching, had prepared to teach, or had taught were not contradicted by B&B:93/94 data. At several points along the teacher pipeline, those more inclined toward teaching tended to have lower college entrance examination scores and higher GPAs than did those less inclined toward teaching. The data also indicate that this apparent discrepancy in findings may be accounted for, at least in part, by differences in course taking: those who taught, only prepared to teach, or were only considering teaching were more likely than other graduates to have taken education courses, less likely to have taken advanced mathematics and calculus courses, and tended to take fewer courses in science or engineering. Because grades in education courses tended to be higher than those in advanced mathematics, calculus, science, and engineering courses, the mix of courses taken by those inclined to teach tended to result in higher GPAs than the mix taken by those who were not so inclined.

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[19] Berliner and Biddle, *The Manufactured Crisis: Myths, Fraud, and the Attack on America's Public Schools*; Cassandra Book, Donald Freeman, and Bruce Brousseau, "Comparing Academic Backgrounds and Career Aspirations of Education and Non-education Majors," *Journal of Teacher Education* 36 (3) (1985): 27-30; Eric A. Hanushek and Richard R. Pace, "Who Chooses to Teach (and Why)?" *Economics of Education Review* 14 (2) (1995): 101-117; Richard J. Murnane, Judith D. Singer, John B. Willett, James J. Kemple, and Randall J. Olsen, *Who Will Teach? Policies That Matter* (Cambridge, MA: Harvard University Press, 1991); Phillip C. Schlechty and Victor S. Vance, "Recruitment, Selection, and Retention: The Shape of the Teaching Force"; Janet C. Sweeney, Richard D. Warren, and Mari R. Kemis, "Teacher Education Graduates at One Year Following Graduation—An Examination of Differences Between Those Who Entered Teaching and Those Who Did Not" (Paper presented at the annual meeting of the Mid-Western Educational Research Association, Chicago, 1990); Weaver, *America's Teacher Quality Problem.*

[20] Russell W. Rumberger, "The Impact of Salary Differentials on Teacher Shortages and Turnover: The Case of Mathematics and Science Teachers," *Economics of Education Review* 6 (4) (1987): 389-399.

This section explicates these findings by comparing 1992-93 graduates who took various steps toward teaching, and who taught in different types of schools, on several aspects of their undergraduate academic careers: their major fields of study, the types of postsecondary institutions in which they began postsecondary education and completed their bachelor's degrees, their entrance examination scores, their grade point averages, the number of credits they earned in various subject areas, and the grades associated with those credits.

Undergraduate Major

Although a useful indicator of the propensity to teach, majoring in education was quite distinct from preparing to teach. Education majors were far more likely than graduates who majored in other fields to enter the teacher pipeline (figure 3 and table 5). However, 1 year after graduation a significant proportion—nearly one quarter—of graduates who majored in education had neither prepared to teach nor taught and were not even considering teaching (table 5).[21] In addition, significant proportions of graduates in other fields—about one-third of humanities majors and one-fifth of other liberal arts majors—were considering teaching in 1994, even if they had neither prepared nor taught.

Table 5—Percentage of 1992-93 bachelor's degree recipients[1] who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in the pipeline, by baccalaureate degree major: 1994

	Percent entered teacher pipeline[2]	Pipeline entrants		
		Considering only	Prepared only	Taught
Total	26.1	52.8	17.1	30.1
Baccalaureate degree major				
Business and management	13.6	86.0	4.1	9.9
Education	77.1	13.0	32.5	54.5
Humanities	33.9	65.1	12.1	22.8
Mathematics, computer science, natural sciences	20.4	67.7	9.2	23.1
Social sciences	22.9	73.0	11.5	15.5
Other	16.9	75.3	10.2	14.5

[1] Excludes those who either taught in elementary or secondary schools before receiving the 1992-93 bachelor's degree or had been certified to teach 1 year or more before receiving the 1992-93 bachelor's degree.

[2] Graduates were defined as having entered the teacher pipeline if they had first taught since receiving the 1992-93 bachelor's degree, prepared to teach during or since the 1992-93 degree, or were considering teaching at the time of the B&B:93/94 interview.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

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[21] Many of these graduates may pursue graduate study in education, teach at non-elementary/secondary levels, or become administrators, counselors, or education policymakers rather than classroom teachers.

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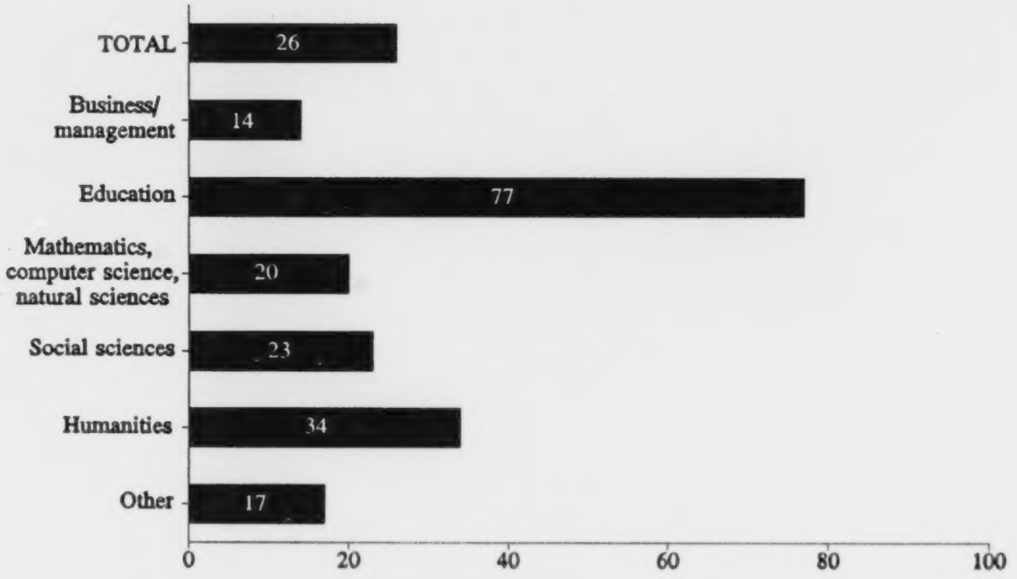
Once in the teacher pipeline, just over half of education majors had taught and another one-third had only prepared to teach (table 5). In contrast, no more than 23 percent of graduates in other majors had taught and no more than 12 percent had only prepared to teach. Given these differences, when comparing education majors with graduates who majored in other fields it is important to keep in mind both that many education majors either had not entered the pipeline or were only considering teaching and that a number of those who majored in other fields had either taught or prepared to teach by 1994.

Figure 3—Percentage of 1992-93 bachelor's degree recipients* who were in the teacher pipeline, by undergraduate major: 1994



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*Excludes bachelor's degree recipients who had taught before receiving 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Types of Postsecondary Institutions Attended

In general, new teachers began their postsecondary careers in and graduated from the same types of postsecondary institutions as other graduates. Most graduates first attended a 4-year institution after high school: 55 percent began in public 4-year institutions, 28 percent in private 4-year institutions, and 17 percent in less-than-4-year institutions. These proportions did not vary with graduates' interest in teaching, and varied little with their undergraduate fields of study (table 6).[22]

Table 6—Percentage distribution of 1992-93 bachelor's degree recipients* according to type of postsecondary institution first attended after high school, by selected teaching-related characteristics: 1994

	First postsecondary institution attended after high school		
	Less than 4-year	Public, 4-year	Private, 4-year
Total	17.3	54.8	27.9
Status in teacher pipeline			
Not in teacher pipeline	16.8	55.5	27.8
In teacher pipeline	18.8	53.0	28.3
Nonteachers	18.1	52.3	29.6
Considering only	17.0	51.9	31.1
Prepared only	21.4	53.6	25.0
Taught	20.6	54.5	24.8
Baccalaureate degree major			
Business and management	19.4	54.7	26.0
Education	19.6	56.2	24.2
Humanities	16.0	45.3	38.8
Mathematics, computer science, natural sciences	14.4	57.1	28.5
Social sciences	14.0	54.1	31.9
Other	20.0	58.1	21.9
	Teachers		
Sector of school at which taught			
Public	23.0	57.7	19.2
Private	9.8	46.2	43.9
Expects to be teaching in 2 years			
Yes	21.1	57.3	21.6
No	19.2	46.3	34.5
Expects to be teaching in long term			
Yes	20.3	58.3	21.4
No	20.2	49.1	30.8

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

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[22] Beyond a greater likelihood among humanities graduates to have begun in private 4-year institutions, college major was not associated with the postsecondary institutions that graduates first attended after high school.

Among teachers, however, the type of institution in which they began college was associated with both the sector of schools in which they taught and their plans to teach in the future. For instance, whereas more than one-fifth of new graduates who taught in public schools first attended less-than-4-year institutions, about one-tenth of their classmates who taught in private schools did. Similarly, private school teachers were more likely than public school teachers to have begun in private 4-year institutions (44 percent versus 19 percent). In addition, new teachers who planned to teach in the future (both in 2 years and in the long term) were less likely than those who did not expect to remain in the classroom to have begun their postsecondary careers in private 4-year institutions.

Unlike the first postsecondary institution attended after high school, the type of institution from which graduates received their degrees did vary slightly with pipeline status. Between 29 and 38 percent of graduates who had only prepared to teach or had taught received their degrees from public nondoctorate-granting institutions, compared with 21 percent of graduates who were not in the teacher pipeline (table 7).

Table 7—Percentage distribution of 1992–93 bachelor's degree recipients[1] according to type of postsecondary institution from which they received their bachelor's degree, by selected teaching-related characteristics: 1994

	Public nondoctorate-granting	Public doctorate-granting	Private not-for-profit nondoctorate-granting	Private not-for-profit doctorate-granting	Other[2]
Total	22.9	42.5	17.8	13.4	3.5
Status in teacher pipeline					
Not in teacher pipeline	20.7	44.3	17.2	13.8	3.9
In teacher pipeline	28.9	37.3	19.3	12.2	2.3
Nonteachers	29.0	35.9	19.7	13.2	2.2
Considering only	26.2	37.3	20.4	13.9	2.2
Prepared only	37.7	31.6	17.5	11.2	2.0
Taught	29.1	41.5	17.1	10.1	2.3
Teachers					
Sector of school at which taught					
Public	32.5	43.2	13.9	7.7	2.7
Private	20.5	33.5	30.9	15.1	0
Expects to be teaching in 2 years					
Yes	33.2	41.7	16.2	7.1	1.8
No	16.1	41.8	18.9	19.2	4.1
Expects to be teaching in long term					
Yes	32.5	42.9	15.9	6.9	1.9
No	21.4	40.9	19.8	14.6	3.4

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Includes graduates of private, for-profit institutions and institutions of unknown type (i.e., 1992–93 bachelor's degree recipients who were sampled from an institution other than the degree-granting one).

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Also, in contrast to their classmates who were in the teacher pipeline, those who were not in the pipeline were more likely to have graduated from public doctorate-granting institutions. These differences are hardly surprising, given that public nondoctorate-granting institutions often began as normal schools or teachers' colleges and are more likely than other types of institutions to offer teacher preparation programs.

As with the first institution attended, however, the most consistent differences were observed between groups of teachers. One-third of public school teachers graduated from public nondoctorate-granting institutions, compared with one-fifth of private school teachers. At the same time private school teachers were more likely to have graduated from private not-for-profit nondoctorate-granting institutions. Again, new teachers who expected to teach in the future differed from short-term teachers: those who expected to be teaching in 2 years and in the long term were more likely to have graduated from nondoctorate-granting public institutions and less likely to have graduated from doctorate-granting private institutions.

Thus, to some degree those in the teacher pipeline attended different types of institutions from those outside the pipeline. More consistent differences in the types of institutions attended occurred among teachers, however. Those who expected to teach in the future and those who taught in public schools more often attended public institutions, particularly public nondoctorate-granting 4-year institutions. It appears, therefore, that those more committed to teaching were more likely to attend institutions that prepared large numbers of teachers.

College Entrance Examination Scores[23]

Those graduates who were more inclined to teach were consistently less likely than graduates who were less inclined to be in the top quartile of entrance exam scores and often were more likely to be in the bottom quartile. For example, although one-quarter of those not in the teacher pipeline had college entrance exam scores in the top quartile, about one-fifth of those who taught had scores in the top quartile (figure 4 and table 8). Similarly, those who majored in education were less likely than liberal arts majors (those who majored in mathematics, computer science, or the natural sciences; the social sciences; or the humanities) to have scored in the top quartile among B&B:93 graduates.

Among 1992–93 graduates who taught, the kinds of schools in which they taught and the level at which they taught were also related to their college entrance exam scores. Compared with those who taught in public schools (17 percent), nearly twice as many of those who taught in private schools (33 percent) scored in the top quartile of B&B graduates (table 8). In addition, new teachers who taught in secondary schools were more likely than their peers in elementary schools to have scored in the top quartile (29 percent compared with 12 percent). Secondary teachers in the class of 1992–93 scored in the top quartile at the same rate as their peers who were not in the teacher pipeline.

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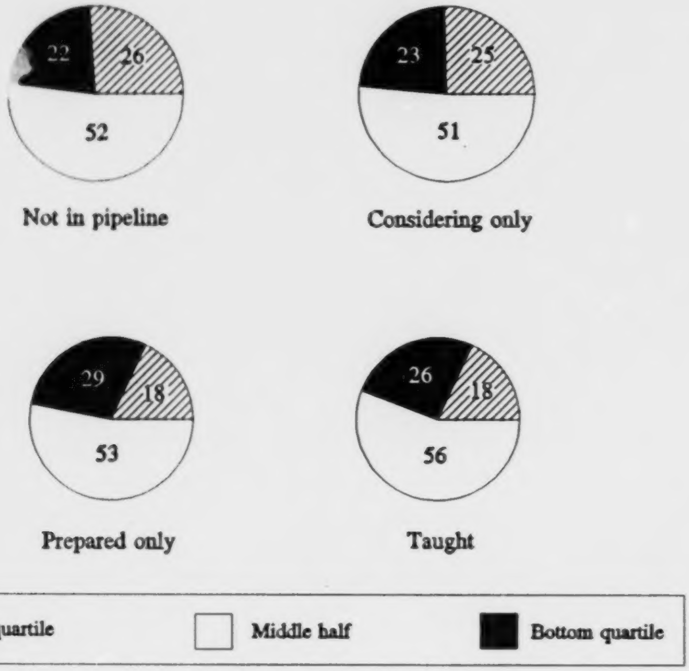
[23] For the purposes of this analysis, students' SAT scores were used when available. ACT scores were used if SAT scores were not available. Quartiles were determined relative to B&B graduates, not the population of SAT/ACT test-takers. See the glossary for further details on this variable.

Finally, whether they had taught or not, graduates in the pipeline who expected to be teaching in 2 years were less likely to have scores in the top quartile than were those who did not expect to be teaching in 2 years. And among new teachers, those who planned to continue teaching in the future were more likely than those who did not to be in the bottom quartile. Thus, at each step toward a long-term career in teaching, those who were more inclined to teach scored less well than those less inclined.

Figure 4—Percentage distribution of 1992-93 bachelor's degree recipients* according to college entrance examination score quartile, by status in teacher pipeline: 1994



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*Excludes bachelor's degree recipients who had taught before receiving 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: Self-reported entrance examination scores were available for 65–70 percent of new bachelor's degree recipients. There were no differences in the proportion of graduates with examination scores by pipeline status.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table 8—Percentage of 1992–93 bachelor's degree recipients* for whom college entrance examination scores were available; and of those with scores, percentage distribution according to score quartile, by selected teaching-related characteristics: 1994

		Of those with test scores		
	Test scores available	Top quartile	Middle half	Bottom quartile
Total	69.1	25.3	51.9	22.9
Status in teacher pipeline				
Not in teacher pipeline	69.4	26.4	51.6	22.0
In teacher pipeline	68.5	22.1	52.6	25.3
Nonteachers	67.8	23.5	51.8	24.7
Considering only	68.7	25.2	51.4	23.4
Prepared only	64.5	17.7	53.4	28.9
Taught	69.9	18.4	55.5	26.2
Baccalaureate degree major				
Business and management	66.1	19.1	54.7	26.2
Education	70.6	15.7	54.6	29.7
Humanities	69.8	32.7	49.4	17.9
Mathematics, computer science, natural sciences	76.0	38.1	48.3	13.6
Social sciences	70.3	26.4	52.9	20.7
Other	64.1	18.3	51.7	30.1
	Teachers			
Sector of school at which taught				
Public	68.0	16.6	55.2	28.2
Private	82.6	32.1	48.4	19.5
Level of school at which taught				
Elementary	67.2	11.7	56.8	31.5
Secondary	74.7	28.6	49.7	21.7
Combined	76.2	29.2	59.0	11.8
	Graduates in teacher pipeline			
Expects to be teaching in 2 years				
Teachers				
Yes	68.7	14.0	56.5	29.5
No	74.6	30.9	52.9	16.3
Nonteachers				
Yes	62.3	15.8	55.6	28.7
No	70.1	26.7	50.6	22.7
Expects to be teaching in long term				
Teachers				
Yes	68.8	16.2	53.8	30.0
No	75.7	22.5	58.8	18.7
Nonteachers				
Yes	63.8	16.5	55.7	27.7
No	70.2	26.4	50.3	23.3

*Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Undergraduate Grade Point Averages

Comparison of undergraduate grade point averages (GPAs) is more complicated than comparison of test scores. Unlike entrance examination scores, where the metric is normed on a national sample, course grades are distributed relative to students in particular classes taught by individual faculty in various institutions. Because grades are not subject to uniform standards across faculty, fields of study, or institutions, comparing them can be problematic. Furthermore, this variation is compounded by differences in the combinations of courses taken by students in different institutions and different fields of study. Therefore, when comparing the GPAs of various groups of students it is important to take into account other variables that are related to GPA that also vary consistently among those groups, such as their fields of study, the courses they took, and their achievement in those courses. Although multivariate techniques provide the best methods of accounting for the influence of other variables, such analyses are beyond the scope of this report. Therefore, in order to examine differences among 1992–93 graduates at various points along the teacher pipeline as accurately as possible, this essay includes information regarding those important covariates.

Cumulative GPA did vary by location in the teacher pipeline. Teachers and those who had only prepared to teach had higher cumulative GPAs than did both those who had not entered the pipeline and those who were only considering teaching (table 9). In addition, with the exception of humanities majors, education majors had higher cumulative GPAs than their peers in the other undergraduate major categories. However, there were no differences among teachers' GPAs by the sector or level of their schools or by their expectations for teaching in the future.

A similar pattern emerges from graduates' GPAs in their major fields of study. Those who taught and those who only prepared to teach had GPAs in their major ranging from 3.44 to 3.48, in contrast to the major GPAs of those who were not in the pipeline or who were only considering teaching, whose major GPAs ranged from 3.26 to 3.29 (figure 5 and table 10). As observed with cumulative GPAs, education majors tended to have higher GPAs in their major field than did their classmates in other fields, with the exception of the humanities.

Because education majors had higher GPAs in their majors than students in some other majors, one might suspect, as others have suggested, that GPAs are a flawed measure of achievement and that this flaw accounts for the contradictory findings on entrance examination scores and GPAs, that is, that those inclined to teach had both lower entrance exam scores and higher GPAs than other graduates. Specifically, one might argue that teachers and those who only prepared to teach had higher GPAs not because they achieved more academically but because the courses they took in college were less rigorous than those taken by other college graduates.

Table 9—Average undergraduate cumulative grade point average (GPA) among 1992-93 bachelor's degree recipients* and percentage distribution of 1992-93 bachelor's degree recipients according to cumulative undergraduate GPA, by selected teaching-related characteristics: 1994

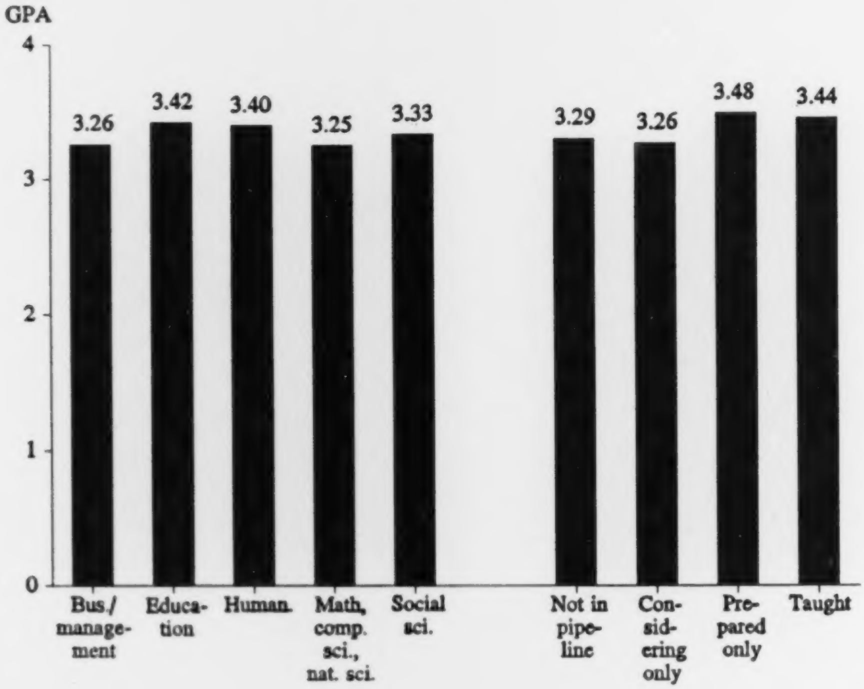
	Average cumulative GPA	Cumulative undergraduate GPA				
		Less than 2.25	2.25–2.74	2.75–3.24	3.25–3.74	3.75 or higher
Total	3.17	2.4	13.6	41.3	30.0	12.8
Status in teacher pipeline						
Not in teacher pipeline	3.16	2.5	13.9	42.0	29.3	12.4
In teacher pipeline	3.19	2.0	12.8	39.3	32.1	13.9
Nonteachers	3.17	2.4	14.7	38.8	31.4	12.7
Considering only	3.12	3.1	17.4	39.0	29.7	10.9
Prepared only	3.31	0.4	6.2	38.3	36.8	18.3
Taught	3.26	1.0	8.4	40.0	33.6	16.9
Baccalaureate degree major						
Business and management	3.15	2.7	14.7	40.5	29.4	12.7
Education	3.24	1.1	10.4	39.3	33.6	15.6
Humanities	3.24	2.2	10.3	37.8	34.3	15.4
Mathematics, computer science, natural sciences	3.13	3.0	16.6	40.8	29.6	10.1
Social sciences	3.16	2.6	14.4	40.1	29.8	13.2
Other	3.16	2.2	11.7	46.7	27.7	11.7
		Teachers				
Sector of school at which taught						
Public	3.27	0.7	8.4	39.0	34.5	17.4
Private	3.29	0.9	8.0	40.0	28.5	22.4
Level of school at which taught						
Elementary	3.28	0.4	7.3	41.7	32.4	18.2
Secondary	3.26	0.7	9.9	35.9	37.9	15.6
Combined	3.25	2.3	9.4	39.4	26.2	22.7
Expects to be teaching in 2 years						
Teachers						
Yes	3.27	1.1	7.0	40.7	36.2	15.1
No	3.26	0.4	13.1	37.1	26.5	23.0
Expects to be teaching in long term						
Teachers						
Yes	3.27	0.9	7.6	38.0	37.4	16.1
No	3.25	0.4	10.0	42.9	28.8	17.9

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Figure 5—Average GPA in undergraduate major of 1992–93 bachelor's degree recipients,* by undergraduate major and status in teacher pipeline: 1994



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*Excludes bachelor's degree recipients who had taught before receiving 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

For example, when one looks at the undergraduate majors of graduates in different locations in the pipeline, one finds that undergraduate major may well be related to the GPA differences between those more inclined to teach and those less inclined. As noted above, majoring in education was not synonymous with preparing to teach or teaching, but it was related. Sixty-four percent of those who only prepared to teach had majored in education (table 11). Three-quarters of elementary school teachers and about half of secondary teachers majored in education, while many secondary level teachers majored in the arts and sciences: 11 percent in the humanities, 11 percent in the natural sciences, 10 percent in mathematics or computer science, and 9 percent in the social sciences. Moreover, teachers who planned to teach in the future were especially likely to have majored in education—about 70 percent did.

Table 10—Average GPA in undergraduate major among 1992–93 bachelor's degree recipients* and percentage distribution of 1992–93 bachelor's degree recipients according to GPA in undergraduate major, by selected teaching-related characteristics: 1994

	Average GPA in undergraduate major	GPA in undergraduate major				
		Less than 2.25	2.25–2.74	2.75–3.24	3.25–3.74	3.75 or higher
Total	3.31	1.6	6.8	40.9	27.5	23.3
Status in teacher pipeline						
Not in teacher pipeline	3.29	1.7	6.9	42.4	26.6	22.4
In teacher pipeline	3.35	1.4	6.4	36.6	29.9	25.7
Nonteachers	3.31	1.5	7.7	38.1	29.3	23.3
Considering only	3.26	1.9	9.5	41.3	27.9	19.5
Prepared only	3.48	0.4	2.2	28.4	33.9	35.0
Taught	3.44	0.9	3.4	32.6	31.0	32.0
Baccalaureate degree major						
Business and management	3.26	1.5	9.0	42.6	26.2	20.7
Education	3.42	1.1	3.1	32.8	31.6	31.3
Humanities	3.40	1.5	5.1	32.9	29.4	31.1
Mathematics, computer science, natural sciences	3.25	2.6	8.2	44.4	25.8	19.0
Social sciences	3.33	1.2	6.3	39.6	28.1	24.8
Other	3.29	1.7	5.6	44.6	27.6	20.5

*Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Thus, because those more inclined to teach were more likely to major in education and education majors tended to have both higher GPAs and lower scores on the SAT or ACT, undergraduate major may account for some of the discrepancy between entrance examination scores and grades. However, given the diversity in majors among graduates in the pipeline, it is necessary to look further at the courses they took and the grades they earned in those courses.

Undergraduate Course Taking

The B&B:93/94 data collection included not only the telephone interview of 1992–93 graduates, but also respondents' transcripts from the degree-granting institution. For most students, these transcripts reflect the courses credited toward the 1992–93 bachelor's degree, but for students who transferred to the degree granting-institutions from other institutions, these transcripts may not be complete records of their undergraduate course-taking experience.

Table 11—Percentage distribution of 1992-93 bachelor's degree recipients[1] according to undergraduate major, by selected teaching-related characteristics: 1994

	Humanities[2]	Social sciences	Natural sciences	Mathematics, computer science	Engineering	Education	Business and management	Health, vocational, technical	Other
Total	10.0	15.4	8.9	4.1	6.6	11.4	25.4	8.8	9.4
Status in teacher pipeline									
Not in teacher pipeline	9.0	16.1	8.9	4.1	8.0	3.5	29.7	10.4	10.2
In teacher pipeline	12.9	13.5	8.8	3.9	2.6	33.7	13.2	4.3	7.1
Nonteachers	14.1	16.2	9.6	3.8	3.4	22.1	16.8	4.9	9.1
Considering only	15.8	18.5	11.3	4.0	4.3	8.4	21.3	6.0	10.3
Prepared only	7.9	8.9	4.3	3.2	0.6	64.1	3.1	1.4	5.4
Taught	9.7	6.9	7.1	4.0	0.6	61.8	4.3	3.1	2.4
				Teachers					
Level of school at which taught									
Elementary	8.1	3.6	4.6	1.1	0	75.6	3.6	1.8	1.7
Secondary	10.5	7.9	11.4	9.9	1.5	47.0	8.1	1.8	1.9
Combined	16.4	6.7	11.9	6.7	0	54.5	0	3.8	0
Expects to be teaching in 2 years									
Yes	8.9	3.4	5.5	4.6	0.3	71.8	3.0	1.4	1.1
No	10.8	16.9	12.4	2.5	1.6	33.1	8.3	8.5	5.8
Expects to be teaching in long term									
Yes	8.9	4.3	5.7	3.6	0.6	70.0	3.4	1.6	1.8
No	10.8	11.4	9.9	4.8	0.8	47.3	5.7	5.9	3.5

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

[2] Includes literature, foreign languages, and fine and performing arts; for more detail see appendix A.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Between 34 and 38 percent of graduates either a) reported having begun postsecondary education at an institution other than the degree-granting institution or b) had records of courses taken at other institutions on their transcripts from the degree-granting institutions.[24] Therefore, the estimates of courses taken, credits earned, and GPAs in the fields presented below must be read with some caution. Nevertheless, they can be used to determine whether there were systematic differences in course taking among groups of graduates.

Remedial Course Taking [25]

The proportion of graduates whose transcripts indicated that they had taken at least one precollegiate mathematics course while in college was positively associated with the propensity to teach.[26] Fifteen percent of graduates in the teacher pipeline had taken at least one precollegiate mathematics course, compared with 12 percent of their classmates who were not in the teacher pipeline (table 12). Differences were also apparent by undergraduate major: 18 percent of education majors had taken a precollegiate mathematics course, compared with 9 percent of mathematics/computer science/natural science majors, and 11 percent among both humanities and social science majors. Public school teachers were more likely than private school teachers to have taken a precollegiate mathematics course. Among those who received credit for precollegiate mathematics, no differences were observed in the number of credits received or in the grade point averages in these courses.

Course taking in remedial English was similar only in that education majors were more likely than social science or humanities majors to have taken at least one course (13 percent of education majors compared with 7 percent of both social science and humanities majors) (table 12). Although there were no differences in the number of credits earned in remedial English courses, teachers who earned credit in remedial English earned slightly higher grades in those courses than graduates who were not in the teacher pipeline.

To the extent that they received credit and higher grades for these courses than their classmates received for other courses, those who took remedial courses may have increased their overall GPAs relative to those of their classmates despite lower achievement levels in mathematics or English. However, given the data discussed above, remedial course taking does not entirely explain the discrepancy between findings on entrance examination scores and GPAs. There was only a 3 percent difference between pipeline and nonpipeline graduates in the proportion who had taken precollegiate mathematics, no difference in the proportion who had taken remedial English, and no differences between teachers and their classmates outside the pipeline. However, those who majored in education were more likely than those who majored in other fields to take remedial courses in both mathematics and English.

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[24] U.S. Department of Education, National Center for Education Statistics, *A Descriptive Summary of 1992-93 Bachelor's Degree Recipients: One Year Later.*

[25] Because some postsecondary institutions do not grant credit for remedial coursework, this report addresses remedial course taking by examining the proportion of graduates who had taken at least one course regardless of credit granted. With respect to nonremedial course taking, the report discusses credits earned so as not to include courses attempted but not passed.

[26] Details concerning definitions of "precollegiate mathematics," "remedial English," and other types of courses can be found in the technical appendix.

Table 12—Percentage of 1992–93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded at least one course attempted in precollegiate mathematics or remedial English, average number of credits earned in each field, and average GPA in each field, by selected teaching-related characteristics: 1994

	Precollegiate mathematics			Remedial English		
	Percent with course	Average number of credits[3]	GPA[3]	Percent with course	Average number of credits[3]	GPA[3]
Total	12.5	3.9	2.77	8.7	3.5	3.13
Status in teacher pipeline						
Not in teacher pipeline	11.7	3.8	2.75	8.1	3.5	3.10
In teacher pipeline	14.9	4.1	2.79	10.3	3.3	3.21
Nonteachers	14.3	4.0	2.84	9.8	3.4	3.14
Considering only	12.7	4.0	2.84	9.7	3.3	3.14
Prepared only	19.4	3.9	2.84	10.2	3.8	3.15
Taught	16.8	4.2	2.70	11.9	3.2	3.35
Baccalaureate degree major						
Business and management	13.2	3.8	2.91	7.8	3.7	3.05
Education	17.9	4.1	2.77	12.5	3.3	3.29
Humanities	10.7	3.8	2.62	6.5	3.3	3.05
Mathematics, computer science, natural sciences	8.5	4.1	2.82	8.5	3.6	3.19
Social sciences	11.3	3.5	2.64	7.3	3.6	3.05
Other	14.8	4.0	2.70	10.2	3.2	3.13
	Teachers					
Sector of school at which taught						
Public	18.5	4.2	2.66	11.6	3.5	3.39
Private	8.7	—	—	12.8	—	—

—Too few cases for a reliable estimate.

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.
[2] Transcripts were collected from degree-granting institutions only and may not include postsecondary credits earned at other institutions. See appendix B for details on transcript data.
[3] Average credits/GPA for those with some credit in each field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Course Taking in Advanced Mathematics or Calculus

Were those inclined to teach more or less likely to have earned credit in advanced mathematics or calculus?[27] As table 13 illustrates, about one-fifth of those in the pipeline had earned advanced mathematics or calculus credit, compared with about one-third of those not in the pipeline.

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[27] The reader is reminded that by "had taken" it is meant "had a record of having taken on the transcript from the degree-granting institution." Respondents whose transcripts did not indicate courses in any of the subjects discussed may well have taken such courses at another institution.

Table 13—Percentage of 1992-93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded credit earned in advanced mathematics or calculus and science or engineering, average number of credits earned in each field, and average GPA in each field, by selected teaching-related characteristics: 1994

	Advanced math or calculus			Science or engineering		
	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]
Total	31.0	7.3	2.68	75.5	18.3	2.67
Status in teacher pipeline						
Not in teacher pipeline	34.5	7.0	2.69	75.1	19.8	2.76
In teacher pipeline	21.2	8.4	2.62	76.6	14.1	2.69
Nonteachers	23.5	8.0	2.63	78.1	15.2	2.67
Considering only	26.0	7.9	2.58	77.1	16.8	2.65
Prepared only	15.9	8.4	2.84	81.3	10.4	2.72
Taught	16.7	10.0	2.61	76.4	11.6	2.75
Baccalaureate degree major						
Business and management	35.8	4.3	2.66	64.0	7.1	2.79
Education	15.5	6.2	2.70	77.5	9.5	2.66
Humanities	16.4	5.0	2.58	68.3	8.9	2.69
Mathematics, computer science, natural sciences	65.0	10.8	2.77	90.6	46.0	2.88
Social sciences	21.7	5.6	2.52	76.8	8.6	2.66
Other	14.3	5.2	2.52	77.0	14.8	2.65
		Teachers				
Sector of school at which taught						
Public	17.6	10.4	2.70	75.9	11.9	2.75
Private	15.7	—	—	71.5	11.0	2.82
Level of school at which taught						
Elementary	12.5	7.7	2.76	74.5	10.7	2.75
Secondary	26.5	12.8	2.73	76.8	14.0	2.87
Combined	16.8	—	—	69.3	11.3	2.88
Main field taught						
General elementary	8.0	—	—	75.6	9.0	2.73
English, reading	7.7	—	—	71.2	8.5	2.66
Mathematics, computer science	52.4	18.2	2.94	78.4	10.1	2.86
Natural sciences	23.3	7.3	2.52	82.3	24.8	2.84
Social studies	9.9	—	—	82.9	—	—
Bilingual, ESL, foreign languages	21.0	—	—	67.6	6.6	2.89
Fine or performing arts	0.9	—	—	67.2	6.9	2.75
Vocational education	15.4	—	—	72.0	9.6	2.55
Special education	7.6	—	—	73.3	8.7	2.68
Other	16.2	—	—	80.3	12.3	2.57

—Too few cases for a reliable estimate.

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

[2] Transcripts were collected from degree-granting institutions only and may not include postsecondary credits earned at other institutions. See appendix B for details on transcript data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

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However, secondary school teachers were no less likely than those not in the pipeline to have earned credit in these fields. This appears to be due to course taking among mathematics, computer science, and natural science teachers: 52 percent of mathematics/computer science teachers had taken these courses, as had 23 percent of their colleagues in the natural sciences. Education majors were less likely than business and mathematics/computer science/natural science majors to have earned credit in advanced mathematics or calculus.

When teachers took courses in these subjects, they tended to earn more credits than their classmates who were not in the teacher pipeline. Teachers earned about 10 credits in advanced mathematics or calculus, compared with 7 credits among those who were not in the pipeline. Grades earned in these courses did not vary with teaching status, and education majors earned about the same grades as their classmates in other majors.

Course Taking in Science or Engineering

Unlike advanced mathematics or calculus, the proportion of graduates who earned credit in science or engineering did not vary with teaching status. About three-quarters of graduates earned credit in these fields regardless of teaching status (table 13). Those who taught did tend to earn fewer credits (12 on average) than either those outside the pipeline (20 credits) or those who were only considering teaching (17 credits). However, those in the pipeline tended to earn about the same grades in science and engineering courses as those not in the pipeline.

Although education majors were less likely than those who majored in mathematics, computer science, or the natural sciences to have earned credit in science and engineering, 78 percent of education majors did earn these credits. Moreover, education majors earned no fewer credits in science or engineering than social science or humanities majors and more than business majors. Education majors did earn lower grades in science and engineering courses than mathematics, computer science, or natural science majors, but about the same grades as their classmates in other majors.

Course Taking in the Humanities and Social Sciences

Course taking in the humanities and social sciences among graduates who taught, only prepared to teach, or were only considering teaching also differed from that of their counterparts outside the teaching pipeline. Although the proportion of graduates who earned any credit in either the humanities or social sciences did not vary with teaching status or undergraduate major, differences were observed in the number of credits earned by those inside and outside the teacher pipeline and in the grades they received. Those who were only considering teaching earned about 2.8 more credits in the humanities than those outside the pipeline, although no other differences were observed by pipeline status (table 14). Education majors earned about 11 fewer humanities credits than humanities majors, but about 7 more than both business and management majors and mathematics, computer science, and natural sciences majors. Graduates' grades in humanities courses did not vary with their major fields of study or with their teaching status.

Table 14—Percentage of 1992-93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded credit earned in the humanities, social sciences, and education, average number of credits earned in each field, and average GPA in each field, by selected teaching-related characteristics: 1994

	Humanities			Social sciences			Education		
	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]
Total	87.9	18.1	3.06	89.0	23.4	2.96	26.4	18.0	3.41
Status in teacher pipeline									
Not in teacher pipeline	87.5	17.6	3.06	88.5	23.6	2.97	16.6	6.1	3.38
In teacher pipeline	88.8	19.5	3.06	90.3	22.9	2.91	54.0	28.3	3.44
Nonteachers	90.7	19.8	3.03	91.9	24.4	2.92	43.6	21.3	3.37
Considering only	91.3	20.4	3.03	91.8	25.3	2.91	26.9	7.4	3.21
Prepared only	88.8	18.1	3.04	91.9	21.4	2.96	94.9	33.5	3.51
Taught	88.4	18.6	3.12	90.6	19.6	2.90	80.4	37.0	3.51
Baccalaureate degree major									
Business and management	85.6	14.2	3.04	87.8	19.9	2.90	11.2	4.9	3.47
Education	89.3	21.0	3.06	91.3	20.1	2.85	80.9	36.9	3.46
Humanities	92.6	32.6	3.14	87.4	21.2	2.98	27.1	10.5	3.43
Mathematics, computer science, natural sciences	89.2	14.1	3.13	89.5	16.6	3.08	17.2	9.9	3.39
Social sciences	90.1	20.0	2.99	95.7	44.8	3.04	28.1	7.3	3.29
Other	84.5	15.7	3.00	84.4	19.2	2.88	20.6	6.7	3.38
Teachers									
Sector of school at which taught									
Public	87.2	17.3	3.13	90.3	19.1	2.90	84.4	37.9	3.54
Private	84.2	23.4	3.18	83.8	19.8	2.92	66.8	36.3	3.51
Level of school at which taught									
Elementary	86.8	17.4	3.12	88.7	18.6	2.89	87.9	42.9	3.53
Secondary	87.7	18.8	3.23	91.6	21.0	3.00	77.6	27.6	3.54
Combined	83.2	20.3	3.19	83.7	19.4	3.02	75.0	34.7	3.57
Main field taught									
General elementary	87.2	16.8	3.05	89.9	21.2	2.86	90.2	43.7	3.51
English, reading	92.1	27.9	3.17	88.7	17.0	2.90	88.0	36.6	3.58
Mathematics, computer science	82.3	15.6	3.22	83.7	15.9	2.95	73.2	32.1	3.56
Natural sciences	90.9	14.4	3.15	93.4	17.5	2.94	83.5	35.8	3.57
Social studies	87.8	17.5	3.28	91.1	46.0	3.35	83.3	23.6	3.65
Bilingual, ESL, foreign languages	82.3	41.8	3.33	92.4	17.3	3.02	65.0	26.0	3.52
Fine or performing arts	93.6	19.7	3.09	84.9	13.0	2.83	76.3	20.3	3.43
Vocational education	88.8	10.4	2.93	99.2	16.7	2.74	58.2	31.5	3.46
Special education	87.1	16.4	3.08	89.7	18.3	2.81	88.2	49.0	3.46
Other	87.3	17.5	3.04	87.3	20.8	2.86	70.2	33.7	3.44

—Too few cases for a reliable estimate.

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

[2] Transcripts were collected from degree-granting institutions only and may not include postsecondary credits earned at other institutions. See appendix B for details on transcript data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

In the social sciences, graduates outside the pipeline earned about 4 more credits than those who taught, but because the other two groups within the pipeline earned more credits than those who taught, overall there was no difference between those inside and those outside the pipeline. Education majors earned about 23 fewer social science credits than social sciences majors, but about 3 credits more than mathematics, computer science, and natural sciences majors. Education majors earned slightly lower grades in social sciences courses than did their classmates who majored in mathematics, computer science, and the natural sciences; the social sciences; and the humanities.

Course Taking in Education

Not surprisingly, those inclined to teach were far more likely to have taken education courses, have taken more of them, and earn higher grades in them than those less inclined to teach. For example, 54 percent of graduates in the pipeline had earned at least one credit in education, compared with 17 percent of graduates not in the pipeline. Ninety-five percent of those who only prepared to teach[28] and 80 percent of those who taught had earned credit in education, compared with 27 percent of those who were only considering teaching. In addition, public school teachers were more likely than private school teachers to have earned credit in education courses.

Similarly, graduates who were more likely to have earned credit in education courses also tended to earn more credits. Those in the pipeline earned an average of 28 credits, compared with 6 among those not in the pipeline. Those who taught or only prepared to teach earned an average of 34 to 37 credits, compared with 6 to 7 credits among those who were not in the pipeline at all or who were only considering teaching. Although public school teachers earned no more credits than private school teachers, elementary school teachers earned an average of 43 credits, compared with 28 credits among secondary school teachers. In addition, grades in education courses varied with teaching status to some degree. Those who taught or only prepared to teach earned higher grades in education courses than those who were not in the pipeline or who were only considering teaching. Grades did not vary with the types of schools in which teachers taught.

Thus it appears that graduates' undergraduate academic experiences varied with their inclinations to teach in several ways. Graduates more inclined to teach were more likely than graduates who were less inclined to receive their degrees from public, nondoctorate-granting institutions, which often prepare large numbers of teachers. Also, graduates in the teacher pipeline were less likely than those not in the pipeline to have college entrance examination scores in the top quartile, but tended to have higher GPAs.

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[28] People who had prepared to teach were identified as such by either having a student teaching course recorded on the transcript from the degree-granting institution, or by having become certified to teach within a year of completion of the degree. Thus, they could have been identified as prepared even if transcript information is missing.

Graduates in the teacher pipeline may have tended to have lower entrance examination scores and higher GPAs than their classmates who were not in the teacher pipeline because of differences in the mix of courses they took. Compared with graduates not inclined to teach, those leaning toward teaching were more likely to have taken precollegiate mathematics and education courses, less likely to have taken advanced mathematics and calculus courses, and tended to have earned fewer credits in science and engineering. Overall, students tended to earn higher grades in education courses than in these fields, the humanities, or the social sciences (tables 12–14). Therefore, students who took proportionally more courses in education would tend to have higher GPAs than those who took relatively more courses in these other fields. Thus the mix of courses taken by graduates in various locations in the teacher pipeline may well explain the observed variation in their cumulative and major GPAs.

The role that differences in undergraduate academic achievement or other experiences, however, play in the quality of teachers' instruction is unknown. For example, although elementary school teachers' experiences tended to differ from their nonteaching peers', these teachers also teach more subjects at less sophisticated levels than secondary school teachers. Therefore the differences between their undergraduate academic experiences and those of other college graduates may reflect different needs for professional training. Further studies beyond the scope of this database are needed to examine the relationship between teachers' achievement and course taking in college on the one hand and their abilities to teach children at various levels on the other.

In addition, a number of efforts to establish standards and assessments for quality instructional practice among elementary and secondary school teachers are underway. The Interstate New Teacher Assessment and Support Consortium (INTASC), the National Board for Professional Teaching Standards (NBPTS), and the National Council for Accreditation of Teacher Education (NCATE) are all engaged in projects to develop standards for high quality instructional practice, assessments for determining which teachers have mastered these standards at various grade levels and in various subject areas, and performance standards for teacher education programs.[29] These efforts may well provide standards and assessments that will allow direct evaluation of teachers' knowledge and practice, and will therefore offer means of improving both professional preparation and practice. Such assessments, for example, may offer teacher educators insight into the most effective balance of undergraduate subject matter and pedagogical courses for preparing elementary and secondary school teachers. They may also provide analyses such as those presented in this report with information that could guide interpretation of the differences in undergraduate preparation observed in the B&B:93 data.

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[29] Linda Darling-Hammond, "The Quiet Revolution: Rethinking Teacher Development," *Educational Leadership* 53 (6) (March 1996): 4–10; Emerson Elliott, "What Performance-Based Standards Mean for Teacher Preparation," *Educational Leadership* 53 (6) (March 1996): 57–58.

Early Teaching Experiences: School Characteristics

In addition to their racial-ethnic backgrounds, gender, and academic experiences, other factors are undoubtedly related to the retention of teachers in the profession. This section examines one of these factors: new teachers' early professional experiences.

In the B&B:93/94 interview, graduates who were new teachers were asked several questions about their most recent teaching experience, and their responses may be linked to their plans to continue or leave teaching. Are difficult assignments early in one's teaching career associated with an early exit from the profession? Do schools that can offer particular types of assistance to new teachers make a difference in their future expectations? And, finally, can teacher induction programs help to maintain new teachers' interest in teaching?

First, in the 1994 B&B interview new teachers were asked whether their students or classes were more difficult than others in their school. This question both serves as a subjective measure of whether these teachers were given more difficult assignments than more experienced teachers, and allows analysis of the relationship between the difficulty of teaching and new teachers' plans to remain in the profession. About 14 percent of new teachers felt that their students or classes were more difficult than those of other teachers in their schools (figure 6).[30] Of these, three out of four expected to be teaching in 2 years, about the same proportion as that found among new teachers who did not consider their assignments more difficult than those of their peers (table 15). Although it appears that those who did not feel that their assignments were more difficult were more likely to expect to be teaching in the long term than those who did (65 percent compared with 54 percent), this difference is not statistically significant.

In addition to reporting the relative difficulty of their teaching assignments, the new teachers were asked to report whether their schools were effective in helping new teachers with discipline, instructional methods, curriculum, and adjusting to the school environment. These data serve as a measure of the conditions under which new teachers worked and, again, allow assessment of the relationship between their early teaching experiences and their future expectations. New teachers tended to report that their schools had helped them on all of these issues. For example, 78 percent of new teachers felt that their schools were helpful with discipline, and 85 percent said their schools helped new teachers adjust to the school environment (figure 6).

New teachers' expectations for teaching in the future were sometimes, but not always, linked to their schools' effectiveness at assisting new teachers. In the case of discipline, for example, 79 percent of those who taught in schools that provided assistance expected to be teaching in 2 years, compared with 67 percent of those who did not perceive this support (table 15). Moreover, 67 percent of those whose schools were effective in helping with

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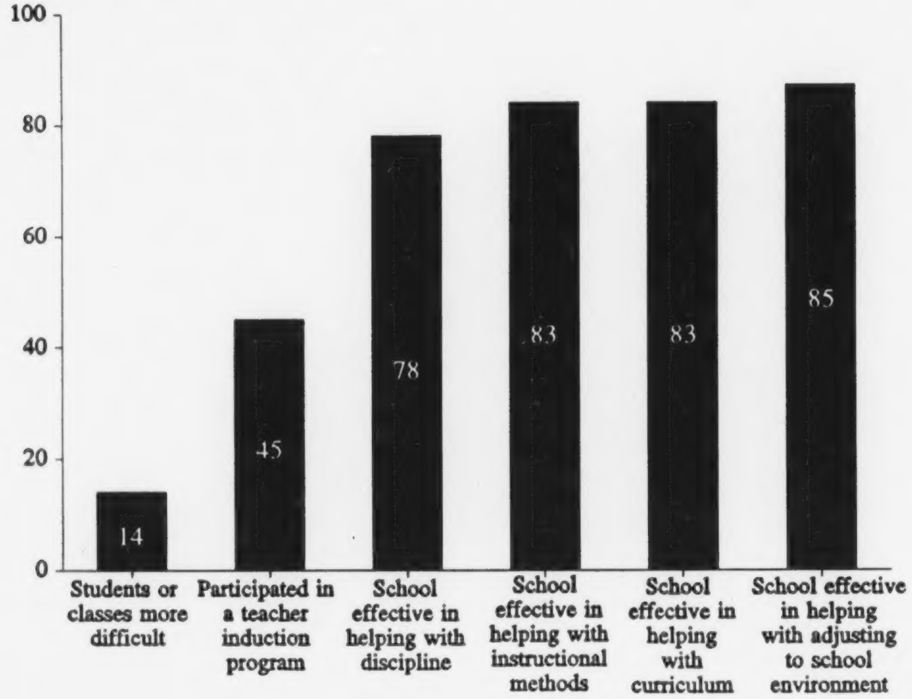
[30] An analysis of the 1987-88 SASS data also indicated that, contrary to popular belief, new teachers were not more likely than other teachers in their schools to have difficult assignments (Sharon Bobbitt and Summer Whitener, "Classroom Environment and Support of Beginning Teachers: A Test of the 'Crucible versus Cradle' Theory of Teacher Induction," (Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, April 1992)).

Figure 6—Of 1992-93 bachelor's degree recipients who were new teachers, percentage who reported that their students or classes were more difficult than others in their schools, that they had participated in teacher induction programs, and that their schools were effective in helping new teachers with various areas of school life: 1994



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

discipline expected to be teaching long term, compared with 53 percent of those who did not teach in such schools. These findings are consistent with earlier research and conventional wisdom that discipline and classroom management are crucial issues in the first year of teaching.[31]

New teachers who reported that their schools were effective at helping with issues other than discipline were as likely as those who were not in such schools to plan to teach in the future. There was one exception: those who reported that their schools helped new

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[31] Simon Veenman, "Perceived Problems of Beginning Teachers," *Review of Educational Research* 54 (2) (Summer, 1984): 143-178.

Table 15—Of 1992–93 bachelor's degree recipients who were new teachers, percentage who planned to be teaching in 2 years and in the long term, by selected teaching-related characteristics: 1994

	Expects to be teaching in 2 years	Expects to be teaching in long term
Total	75.5	63.3
Participated in induction program		
Yes	80.4	67.9
No	72.1	59.8
Classes or students more difficult than others in school		
Yes	78.3	54.3
No	75.7	65.0
School helped with discipline		
Yes	79.4	66.8
No	66.8	53.5
School helped with instructional methods		
Yes	78.0	64.8
No	68.5	57.5
School helped with curriculum		
Yes	76.9	64.5
No	74.2	59.7
School helped with environment		
Yes	77.4	65.3
No	72.2	55.0

—Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

teachers adjust to their school environments were more likely than those who did not to expect to teach long term. This suggests that receiving support in the intervention areas discussed above may not have a large effect on new teachers' expected persistence in the teacher pipeline.

Another form of institutional support for new teachers is the teacher induction program. Based on the idea that new teachers who are provided with a professional support system will be more capable of adjusting to their environment, performing their job competently, enjoying their work, and therefore more likely to continue teaching,[32] an increasing number of school districts and private schools offer induction programs for new teachers.[33] These programs typically assign a new teacher to a mentor or master teacher who can assist them as questions or difficulties arise, but often include workshops or seminars that allow new teachers to share their experiences with each other as well as with their mentors.

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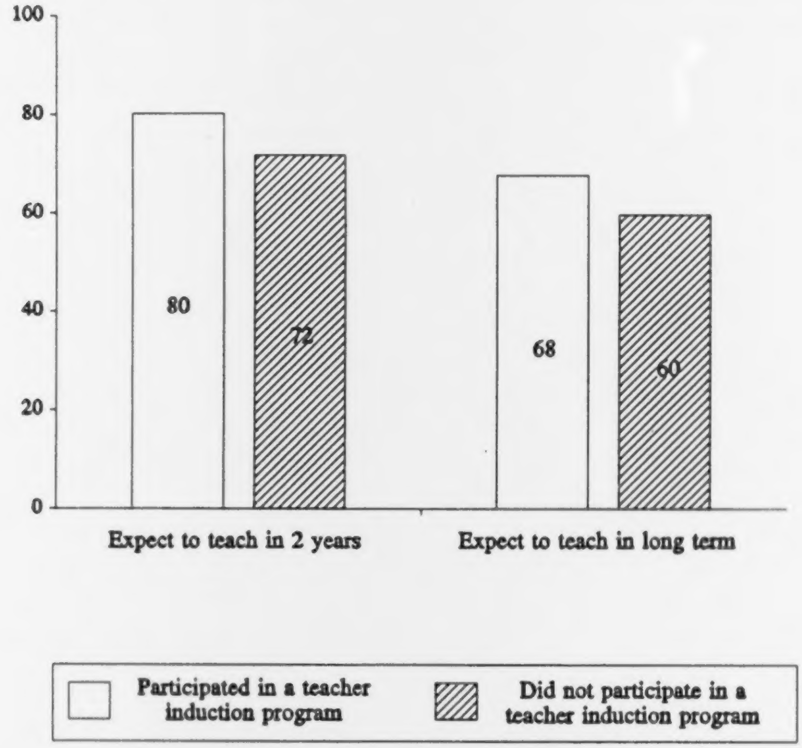
[32] Mary Judith Goggins Selke, *Teacher Induction Variables: Impact upon Second Year Teacher Retention* (Ph.D. dissertation, Marquette University, 1992).

[33] U.S. Department of Education, National Center for Education Statistics, *Schools and Staffing in the United States: A Statistical Profile, 1993–94*.

Among the 1992–93 graduates who were new teachers, nearly half had participated in a teacher induction program (figure 6). Eighty percent of those who had participated expected to be teaching in 2 years, compared with 72 percent of those who had not participated (figure 7 and table 15). Similarly, while 68 percent of induction program participants expected to be teaching in the long term, 60 percent of nonparticipants had this expectation.

Figure 7—Of 1992–93 bachelor's degree recipients who were new teachers, percentage who expected to be teaching in 2 years and in the long term, by whether they had participated in a teacher induction program: 1994



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Thus, the B&B:93/94 survey provides some evidence that teacher induction programs may aid in retaining teachers in the work force in the short term. Among both new teachers who were induction program participants and those who were nonparticipants, however, significantly more expected to be teaching in 2 years than in the long term. Thus, the retention effect of the induction programs may not be enough to counteract the tendency of new teachers to make long-term plans outside of teaching. On the other hand, it is important to note that the amount of support provided by teacher induction programs varies with the content, length, and structure of the program. For example, while some schools may offer formal mentorships combined with workshops, other programs may consist of an introduction to more experienced teachers in the school and encouragement to call if problems arise. Thus, the overall effects of teacher induction programs on new teachers' future expectations may be masked by variability in the programs themselves. In any case, whether those who do not plan to continue teaching do, in fact, drop out of the teacher pipeline will be examined using subsequent waves of data collection.

Summary and Conclusion

The data presented in this report indicate that 1992-93 college graduates who entered the teacher pipeline differed in both demographic and academic terms from their classmates who were not in the pipeline. At several points along the pipeline, women and white graduates were more inclined toward teaching than men and minority graduates, as has been observed historically. Compared with those not in the pipeline, those in the pipeline were less likely to have college entrance examination scores in the top quartile, tended to have higher GPAs, and were more likely to have graduated from public nondoctorate-granting institutions. Graduates in the pipeline also tended to take a different mix of courses than their peers outside the pipeline did. Pipeline graduates were more likely to take both precollegiate mathematics and education courses, less likely to take advanced mathematics or calculus courses, and tended to take fewer science or engineering courses. These differences in course taking may explain, in part, the observed differences in GPAs, because students tended to earn higher grades in education courses than in other disciplines.

Differences between those in the pipeline and those outside the pipeline, however, sometimes overshadowed differences among types of teachers. About 60 percent of the new teachers in the class of 1992-93 taught in elementary schools, compared with 34 percent in secondary schools. On several of the characteristics examined—including gender, college entrance examination scores, cumulative or major GPAs, and credits earned in advanced mathematics or calculus—secondary school teachers did not differ from their classmates who had not entered the teacher pipeline. In addition, secondary school teachers tended to take fewer education courses than their elementary school colleagues. Thus differences between teachers and those outside the pipeline often represented differences between elementary school teachers and those outside the pipeline.

Some have suggested that differences in academic characteristics and experiences between those inclined to teach and those not so inclined may decrease the quality of instruction in elementary and secondary schools.[34] These authors have further suggested that these differences are compounded when teachers with higher academic achievement leave the profession at higher rates than those with lower achievement levels. Future B&B:93 data collections will allow examination of both teachers' departure from the profession and others' entry into the profession as the class of 1992-93 matures. Analysts will therefore be able to assess the degree to which differences between the teachers and nonteachers among this college cohort become greater, remain the same, or decrease as graduates move in and out of teaching.

Nevertheless, the import of these differences remains unclear without criteria against which one might judge the adequacy of teachers' academic preparation for their work with children. Further research, such as that being carried out by INTASC, NBPTS, and NCATE, must determine what teachers at various grade levels and in various disciplines need to know in order to instruct their students effectively. Given empirically based criteria for teacher knowledge, B&B:93 data on the undergraduate and graduate education of teachers will allow those interested in elementary and secondary education to evaluate teachers' postsecondary education and performance, and then make informed decisions regarding university education and teacher professional development.

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[34] Schlechty and Vance, "Recruitment, Selection, and Retention"; Weaver, *America's Quality Teacher Problem.*

Table Compendium

The table compendium includes the data presented in the essay as well as additional statistics on 1992-93 bachelor's degree recipients and teaching. The tables are arranged in five sections:

I Which 1992-93 Graduates Entered the Teacher Pipeline?
II Demographic Characteristics of 1992-93 Bachelor's Degree Recipients in the Teacher Pipeline
III Academic Experiences of 1992-93 Bachelor's Degree Recipients in the Teacher Pipeline
IV New Teachers' Experiences in Schools
V Reasons for Choosing Future Jobs and Plans for the Future

The tables in each section are accompanied by a page of highlights from the tables. The highlights are intended to provide readers with the most interesting information in the tables at a glance, and in some instances repeat information provided in the essay.

Section I: Which 1992-93 Graduates Entered the Teacher Pipeline?

- Among 1992-93 bachelor's degree recipients,[1] 26 percent had taught since graduation, had prepared to teach, or were considering a teaching career in 1994.[2] About 77 percent of education majors had entered the pipeline, at least twice the proportion of pipeline entrants among graduates with any other major. (table C1.1) {t's≥17.40}

- At each point along the teacher pipeline, men were less likely than women to make a commitment to teaching. For example, while half of female pipeline entrants had neither prepared to teach nor taught by 1994, this was the case for two-thirds of their male counterparts. {not prepared t=5.63} Similarly, about one-third of females in the pipeline had taught by 1994, compared with one-fourth of males. (table C1.1) {t=5.18}

- Cumulative undergraduate grade point average was positively associated with preparing to teach and with teaching. Thirty percent or more of pipeline entrants whose cumulative GPAs were 2.75 or higher had taught by 1994, whereas 20 percent or fewer of those with cumulative GPAs between 2.25 and 2.75 did so. {t's≥3.20, k=10, cv=2.81} Similarly, those with cumulative GPAs of 2.75 of higher were more likely than those with lower cumulative GPAs to have prepared but not taught. (table C1.1) {t's≥3.70, k=10, cv=2.81}

- Almost 50 percent of pipeline entrants applied for teaching positions, and of those who applied, 72 percent were offered them. Of those who were offered positions, 90 percent accepted. (table C1.2)

- Pipeline entrants who had earned 120 or fewer semester credits as undergraduates were less likely than their peers who had earned 136 or more credits to have prepared to teach (24 versus 52 to 54 percent). Those with fewer credits were also less likely to have applied for a teaching position (38 versus 55 percent). (table C1.2) {t's≥4.16}

- Compared with pipeline entrants who scored in the top quartile on the SAT or ACT, those scoring in the bottom quartile were more likely to have applied for teaching positions (52 versus 41 percent).[3] {t=2.75, k=3, cv=2.39} However, among applicants for teaching positions, there was no association between entrance exam score and the proportion of bachelor's degree recipients who received or accepted a teaching job offer. (table C1.2) {received t's≤1.29; accepted t's≤0.29; k=3, cv=2.39}

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[1] Excludes those who either taught in elementary or secondary schools before receiving the 1992-93 bachelor's degree or had been certified to teach 1 year or more before receiving the 1992-93 bachelor's degree.

[2] Those who had taught since graduation, prepared to teach, or at the time of the interview were considering teaching are referred to as "those who entered the teacher pipeline" or "pipeline entrants" elsewhere in this report.

[3] Quartiles were determined relative to B&B graduates, not SAT or ACT population norms.

Table C1.1—Percentage of 1992–93 bachelor's[1] degree recipients who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by selected undergraduate academic and demographic characteristics: 1994

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Considering only	Prepared only	Taught
Total	26.1	52.8	17.1	30.1
Academic characteristics				
Entrance exam scores				
Available	25.8	53.0	16.2	30.8
Bottom quartile	27.8	49.4	18.6	32.0
Middle half	26.3	51.4	16.3	32.3
Top quartile	22.6	61.1	13.1	25.9
Unavailable	27.1	52.2	19.1	28.7
First postsecondary institution attended after high school				
Less-than-4-year	28.5	46.9	19.8	33.3
Public 4-year	25.3	51.0	17.6	31.4
Private not-for-profit 4-year	26.6	57.6	15.5	26.9
Ever taken remedial instruction				
Yes	34.6	57.3	16.7	26.0
No	25.7	51.8	17.6	30.6
Baccalaureate degree major				
Business and management	13.6	86.0	4.1	9.9
Education	77.1	13.0	32.5	54.5
Humanities	33.9	65.1	12.1	22.8
Mathematics, computer science, natural sciences	20.4	67.7	9.2	23.1
Social sciences	22.9	73.0	11.5	15.5
Other	16.9	75.3	10.2	14.5
Cumulative undergraduate GPA				
Less than 2.25	21.9	81.1	3.5	15.4
2.25–2.74	24.5	71.6	8.3	20.0
2.75–3.24	24.9	52.3	16.8	31.0
3.25–3.74	27.9	48.6	19.7	31.8
3.75 or higher	28.4	40.9	22.5	36.7
Undergraduate GPA in major				
Less than 2.25	22.1	73.8	5.2	20.9
2.25–2.74	24.9	78.1	6.0	15.9
2.75–3.24	23.5	59.7	13.4	26.9
3.25–3.74	28.5	49.3	19.5	31.2
3.75 or higher	29.1	39.7	23.1	37.2
Degree-granting institution				
Public nondoctorate-granting	33.1	47.6	22.3	30.1
Public doctorate-granting	23.0	52.4	14.4	33.2
Private not-for-profit nondoctorate-granting	28.4	56.9	15.9	27.2
Private not-for-profit doctorate-granting	23.8	59.6	15.7	24.7
Other	17.1	53.1	15.4	31.5

Table C1.1—Percentage of 1992–93 bachelor's degree recipients[1] who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Considering only	Prepared only	Taught
Credits earned toward bachelor's degree				
120 or fewer	23.1	66.4	12.6	21.1
121–135	25.0	58.5	14.3	27.2
136–150	28.8	41.5	24.1	34.4
More than 150	31.4	41.5	19.7	38.8
Years from postsecondary education entry to BA receipt				
4 years or less	24.9	57.5	15.6	26.9
More than 4, up to 5 years	26.0	49.7	18.9	31.4
More than 5, up to 6 years	24.2	54.2	14.9	31.0
More than 6 years	27.8	51.6	18.1	30.3
Enrollment status April 1994				
Not enrolled	25.9	52.5	16.7	30.8
Enrolled part time	30.9	47.1	14.2	38.7
Enrolled full time	25.9	59.2	20.2	20.6
Highest degree expected				
Bachelor's degree	14.4	64.7	19.3	15.9
Master's degree	28.5	48.5	18.2	33.3
First professional degree	15.5	73.9	6.5	19.6
Doctoral degree	33.8	56.7	15.1	28.3
Other degree	24.5	43.8	11.9	44.2
Demographic characteristics				
Gender				
Male	19.8	63.0	13.4	23.6
Female	31.7	47.2	19.1	33.7
Age received bachelor's degree				
22 or younger	26.0	53.1	17.7	29.3
23–24	25.4	53.9	13.9	32.3
25–29	25.8	51.5	12.4	36.1
30–39	28.2	48.8	24.6	26.6
40 or older	28.0	56.0	22.3	21.7
Race–ethnicity				
Minority	24.4	65.5	8.3	26.1
American Indian/Alaskan Native	35.4	—	—	—
Asian/Pacific Islander	9.6	59.6	20.9	19.5
Black, non-Hispanic	33.4	74.2	5.6	20.2
Hispanic	27.5	53.8	8.2	38.0
White, non-Hispanic	26.5	50.3	18.8	31.0
Parents' educational attainment				
High school or less	27.9	47.5	21.0	31.6
Some postsecondary education	26.0	53.7	16.0	30.3
Bachelor's degree	24.5	52.5	18.7	28.7
Advanced degree	26.6	58.5	13.2	28.3

Table C1.1—Percentage of 1992-93 bachelor's degree recipients[1] who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Considering only	Prepared only	Taught
Employment status April 1994				
Not in labor force	23.3	60.8	23.8	15.4
Unemployed	30.7	64.3	19.3	16.4
Working part time	35.7	44.0	27.7	28.3
Working full time	24.5	53.5	13.2	33.3
Marital status April 1994				
Never married	24.1	56.7	15.1	28.2
Married/cohabit as married	30.7	44.7	20.5	34.8
Divorced/separated/widowed	28.3	61.8	18.4	19.7
Number of children				
No children	25.1	54.1	16.2	29.7
One child or more	31.5	48.5	20.5	31.0

—Too few cases for a reliable estimate.

[1] Excludes those who either taught in elementary or secondary schools before receiving the 1992-93 bachelor's degree or had been certified to teach 1 year or more before receiving the 1992-93 bachelor's degree.

[2] Graduates were defined as having entered the teacher pipeline if they had first taught since receiving the 1992-93 bachelor's degree, prepared to teach during or since the 1992-93 degree, or were considering teaching at the time of the B&B:93/94 interview.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C1.2—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who prepared to teach, applied for a teaching position, were offered a teaching position, and accepted a teaching position, by selected undergraduate academic and demographic characteristics: 1994

	Percent prepared to teach[1]	Percent applied for teaching position[2]	Of applicants, percent offered a teaching position[2]	Of those offered, percent accepted teaching position[2]
Total	40.1	46.7	72.0	90.0
Status in teacher pipeline				
Nonteachers	24.5	28.5	43.8	66.9•
Considering only	0	15.3	50.8	67.7•
Prepared only	100.0	69.0	39.0	66.2•
Taught	76.3	89.8	92.7•	98.0•
Academic characteristics				
Entrance exam scores				
Available	39.7	46.4	73.2	89.6
Bottom quartile	46.2	51.8	76.9	90.2
Middle half	40.9	46.2	71.5	89.3
Top quartile	29.2	40.5	72.6	89.6
Unavailable	41.1	47.4	69.3	91.0
First postsecondary institution attended after high school				
Less-than-4-year	45.5	51.1	71.5	91.7
Public 4-year	42.9	49.1	72.8	89.4
Private not-for-profit 4-year	32.8	41.6	68.4	91.4
Ever taken remedial instruction				
Yes	35.7	46.8	72.7	86.3
No	41.3	46.8	71.6	90.1
Baccalaureate degree major				
Business and management	6.4	16.8	66.3	—
Education	83.3	78.5	73.8	90.9
Humanities	25.8	41.5	65.2	89.9
Mathematics, computer science, natural sciences	23.9	37.8	76.8	93.2
Social sciences	17.9	31.8	60.2	88.0
Other	14.4	23.2	77.6	82.3
Cumulative undergraduate GPA				
Less than 2.25	13.8	34.5	—	—
2.25-2.74	22.0	37.4	71.6	81.6
2.75-3.24	41.0	47.0	70.5	92.3
3.25-3.74	45.1	51.0	71.8	88.1
3.75 or higher	49.2	48.1	75.4	94.2
Undergraduate GPA in major				
Less than 2.25	20.7	55.3	—	—
2.25-2.74	12.8	30.8	76.3	76.4
2.75-3.24	34.4	41.6	75.3	90.3
3.25-3.74	43.5	49.5	70.9	86.3
3.75 or higher	53.2	54.3	69.3	94.2

Table C1.2—Of 1992–93 bachelor's degree recipients in the teacher pipeline, percentage who prepared to teach, applied for a teaching position, were offered a teaching position, and accepted a teaching position, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Percent prepared to teach[1]	Percent applied for teaching position[2]	Of applicants, percent offered a teaching position[2]	Of those offered, percent accepted teaching position[2]
Degree-granting institution				
Public nondoctorate-granting	48.5	52.7	70.3	91.3
Public doctorate-granting	40.5	47.2	76.9	91.1
Private not-for-profit nondoctorate-granting	34.5	44.1	69.4	83.9
Private not-for-profit doctorate-granting	29.3	36.3	65.9	90.7
Other	30.5	37.7	—	—
Credits earned toward bachelor's degree				
120 or fewer	24.3	37.6	67.0	83.5
121–135	33.6	42.6	71.5	91.3
136–150	54.2	55.0	73.9	88.7
More than 150	52.3	55.2	74.5	92.1
Years from postsecondary education entry to BA receipt				
4 years or less	34.4	43.9	70.6	90.0
More than 4, up to 5 years	44.1	49.1	71.6	87.7
More than 5, up to 6 years	38.5	47.2	70.9	90.5
More than 6 years	42.5	46.4	71.9	92.3
Enrollment status April 1994				
Not enrolled	41.2	48.2	71.8	90.1
Enrolled part time	45.7	52.6	83.5	95.5
Enrolled full time	28.4	32.3	64.5	82.1
Highest degree expected				
Bachelor's degree	31.0	30.9	62.5	79.5
Master's degree	45.0	51.3	72.6	90.0
First professional degree	15.6	32.3	76.4	—
Doctoral degree	33.4	41.2	73.1	92.1
Other degree	51.4	65.1	—	—
Highest teacher certification type (from all)				
Other	68.8	86.7	67.2	96.8
Probationary	100.0	90.2	69.3	95.2
Regular	100.0	89.6	76.5	91.4
Demographic characteristics				
Gender				
Male	28.3	35.5	71.9	88.0
Female	46.5	52.8	72.0	90.8

Table C1.2—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who prepared to teach, applied for a teaching position, were offered a teaching position, and accepted a teaching position, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Percent prepared to teach[1]	Percent applied for teaching position[2]	Of applicants, percent offered a teaching position[2]	Of those offered, percent accepted teaching position[2]
Age received bachelor's degree				
22 or younger	38.8	47.4	71.2	88.1
23-24	40.2	45.4	73.5	89.6
25-29	39.3	49.0	74.9	93.8
30-39	47.5	46.2	74.8	93.0
40 or older	39.2	42.9	58.7	94.2
Race-ethnicity				
Minority	25.3	41.6	74.8	84.2
American Indian/Alaskan Native	—	—	—	—
Asian/Pacific Islander	32.0	29.8	—	—
Black, non-Hispanic	17.1	38.0	71.5	77.7
Hispanic	35.0	50.2	79.3	89.2
White, non-Hispanic	42.9	47.8	71.5	90.9
Parents' educational attainment				
High school or less	47.5	51.7	70.1	87.2
Some postsecondary education	37.3	45.7	74.1	93.5
Bachelor's degree	40.8	46.4	72.8	91.0
Advanced degree	33.3	41.7	71.4	89.9
Employment status April 1994				
Not in labor force	30.4	24.1	72.3	85.6
Unemployed	25.9	49.2	60.3	82.5
Working part time	47.2	52.7	57.5	84.9
Working full time	40.3	47.3	77.4	91.8
Marital status April 1994				
Never married	35.1	42.8	72.7	89.8
Married/cohabit as married	50.0	54.6	71.9	89.7
Divorced/separated/widowed	34.1	40.0	58.8	—
Number of children				
No children	38.2	45.8	72.4	89.2
One child or more	46.8	49.5	70.3	92.8

—Too few cases for a reliable estimate.

[1] Includes those who prepared to teach regardless of whether they had taught. Does not include those who taught but did not prepare to teach.

[2] Includes applications for positions as teacher aides and substitute teachers. Because these positions were not counted as "teaching" in the pipeline variable, respondents who were offered and accepted these positions were not categorized as having taught in the pipeline variable.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Section II: Demographic Characteristics of 1992-93 Bachelor's Degree Recipients in the Teacher Pipeline

- Among both teachers and nonteachers in the pipeline, those who expected to teach in the future tended to be women. Three out of four of the new teachers who expected to still be teaching in 2 years or in the long term were women. Among nonteachers in the pipeline, 3 out of 4 of those who expected to be teaching in 2 years or in the long term were women. (table C2.1)

- The racial-ethnic makeup of the teacher pipeline was somewhat different from that of other 1992-93 bachelor's degree recipients. The teacher pipeline had a higher proportion of black, non-Hispanic graduates (8 percent versus 5 percent) and a smaller proportion of Asian/Pacific Islander graduates (2 percent versus 6 percent) than the non-pipeline population. (table C2.2) {t=2.07, 5.38; k=1,cv=1.96}

- Among those who were in the teacher pipeline, those who applied for teaching positions were more likely than those who did not apply to come from families where neither parent had pursued education beyond high school (36 percent versus 30 percent). {t=2.57, k=, cv=1.96} Similarly, those who applied for positions were less likely than those who did not apply to come from families where at least one parent had earned an advanced degree (23 percent versus 28 percent). (table C2.3) {t=2.5, k=1, cv=1.96}

- In general, having children appeared to be associated with an interest in teaching. For example, 1992-93 bachelor's degree recipients in the teacher pipeline were more likely to have at least one child (22 percent) than were their peers who were not in the pipeline (17 percent). (table C2.4) {t=3.36, k=1, cv=1.96}

- Graduates in the pipeline earned less than graduates not in the pipeline. Among 1992-93 bachelor's degree recipients, those who were in the teacher pipeline were more likely than those who were not to have earned between $5,000 and $14,999 a year. {5K-9,999 t=4.49; 10K-14,999 t=6.66, k=1, cv=1.96} Those in the pipeline were also less likely than those who were not to earn incomes higher than $25,000. (table C2.6) {25-34,999 t=6.52, k=1, cv=1.96; 35-49,000 t=7.29, k=1, cv=1.96; 50,000+ t=4.53, k=1, cv=1.96}

Table C2.1—Percentage distributions of 1992–93 bachelor's degree recipients[1] according to gender and age, by selected teaching-related characteristics: 1994

	Gender		Age				
	Male	Female	22 or younger	22–24	25–29	30–39	40 or older
Total	46.5	53.5	47.3	24.8	12.4	9.8	5.7
Status in teacher pipeline							
Not in teacher pipeline	50.5	49.5	47.4	25.0	12.5	9.6	5.5
In teacher pipeline	35.2	64.8	47.1	24.0	12.3	10.6	6.1
Nonteachers	38.4	61.6	47.8	23.2	11.2	11.1	6.9
Considering only	42.0	58.0	47.4	24.4	11.9	9.8	6.5
Prepared only	27.4	72.6	48.7	19.4	8.9	15.1	8.0
Taught	27.5	72.5	45.9	25.7	14.6	9.3	4.4
	Graduates in teacher pipeline						
Whether applied for teaching position							
Yes	26.7	73.3	47.7	23.3	12.9	10.5	5.6
No	42.6	57.4	46.5	24.6	11.8	10.7	6.5
Whether offered teaching position[2]							
Yes	26.7	73.3	47.3	23.8	13.4	11.0	4.6
No	26.9	73.2	48.9	21.9	11.5	9.5	8.2
Whether accepted offer[3]							
Yes	26.2	73.8	46.5	23.6	14.0	11.2	4.8
No	32.2	67.8	56.7	24.7	8.3	7.6	2.7
Expects to be teaching in 2 years							
Teachers							
Yes	22.7	77.3	43.0	27.1	14.5	11.2	4.2
No	43.7	56.3	54.2	20.9	16.1	4.2	4.6
Nonteachers							
Yes	25.0	75.0	45.7	23.1	10.9	11.8	8.5
No	44.8	55.2	47.6	23.7	11.4	11.1	6.1
Expects to be teaching in long term							
Teachers							
Yes	22.6	77.4	43.2	26.9	13.2	11.9	4.8
No	36.4	63.6	51.5	23.8	16.4	4.9	3.6
Nonteachers							
Yes	25.0	75.0	46.0	24.1	10.2	11.2	8.5
No	46.6	53.4	47.2	23.2	11.8	11.4	6.3

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Defined for those who applied for at least one teaching position.

[3] Defined for those who were offered at least one teaching position.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C2.2—Percentage distribution of 1992–93 bachelor's degree recipients[1] according to race–ethnicity, by selected teaching-related characteristics: 1994

	American Indian/ Alaskan Native	Asian/ Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
Total	0.5	5.1	5.9	5.0	83.6
Status in teacher pipeline					
Not in teacher pipeline	0.5	6.2	5.3	4.9	83.2
In teacher pipeline	0.7	1.9	7.5	5.2	84.7
Nonteachers	0.8	2.2	8.4	4.7	84.0
Considering only	1.0	2.1	10.3	5.4	81.2
Prepared only	0.2	2.3	2.4	2.5	92.7
Taught	0.4	1.2	4.9	6.6	86.9
	Graduates in teacher pipeline				
Whether applied for teaching position					
Yes	0.7	1.2	6.1	5.6	86.4
No	0.7	2.5	8.8	4.9	83.2
Whether offered teaching position[2]					
Yes	0.5	1.4	6.1	6.1	85.9
No	1.3	0.6	6.2	4.1	87.9
Whether accepted offer[3]					
Yes	0.6	1.4	5.3	5.9	86.9
No	0	2.1	13.6	6.4	77.9
Expects to be teaching in 2 years					
Teachers					
Yes	0.3	0.9	4.1	6.9	87.9
No	0.7	1.5	7.7	6.0	84.1
Nonteachers					
Yes	0.3	1.1	6.5	5.9	86.3
No	1.1	2.7	9.1	4.4	82.6
Expects to be teaching in long term					
Teachers					
Yes	0.4	1.1	3.5	5.0	90.1
No	0.5	1.4	7.2	9.1	81.8
Nonteachers					
Yes	0.3	1.1	5.0	6.0	87.6
No	1.1	2.6	10.6	4.3	81.4

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Defined for those who applied for at least one teaching position.

[3] Defined for those who were offered at least one teaching position.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C2.3—Percentage distribution of 1992-93 bachelor's degree recipients[1] according to highest level of parental education, by selected teaching-related characteristics: 1994

	High school or less	Some postsecondary education	Bachelor's degree	Advanced degree
Total	30.9	19.4	23.9	25.8
Status in teacher pipeline				
Not in teacher pipeline	30.2	19.5	24.5	25.7
In teacher pipeline	32.7	19.1	22.2	26.0
Nonteachers	31.8	19.2	22.5	26.6
Considering only	29.3	19.7	22.0	29.0
Prepared only	39.0	17.7	23.7	19.6
Taught	34.5	19.6	21.3	24.7
	Graduates in teacher pipeline			
Whether applied for teaching position				
Yes	36.1	18.7	22.0	23.1
No	29.7	19.5	22.4	28.4
Whether offered teaching position[2]				
Yes	35.3	19.3	22.4	23.0
No	38.3	17.1	21.3	23.4
Whether accepted offer[3]				
Yes	34.2	20.0	22.7	23.1
No	44.7	12.3	20.0	23.0
Expects to be teaching in 2 years				
Teachers				
Yes	37.8	18.7	21.0	22.6
No	24.0	22.3	21.3	32.4
Nonteachers				
Yes	38.5	17.4	22.6	21.4
No	29.4	20.3	22.4	27.9
Expects to be teaching in long term				
Teachers				
Yes	37.0	19.3	20.7	23.0
No	29.0	19.6	21.7	29.6
Nonteachers				
Yes	36.7	18.8	21.2	23.3
No	30.5	19.6	22.5	27.3

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

[2] Defined for those who applied for at least one teaching position.

[3] Defined for those who were offered at least one teaching position.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C2.4—Percentage distributions of 1992–93 bachelor's degree recipients[1] according to marital status in April 1994 and whether they had children, by selected teaching-related characteristics: 1994

	Marital status April 1994			Number of children	
	Never married	Married/ cohabit as married	Divorced/ separated/ widowed	None	One child or more
Total	66.8	29.3	3.9	82.1	17.9
Status in teacher pipeline					
Not in teacher pipeline	68.7	27.5	3.8	83.3	16.7
In teacher pipeline	61.4	34.3	4.2	78.5	21.5
Nonteachers	62.9	32.2	4.9	78.7	21.3
Considering only	65.8	29.2	5.0	80.2	19.8
Prepared only	54.0	41.4	4.6	74.1	25.9
Taught	57.4	39.8	2.8	77.7	22.3
	Graduates in teacher pipeline				
Whether applied for teaching position					
Yes	56.2	40.1	3.6	77.1	22.9
No	65.9	29.3	4.8	79.6	20.4
Whether offered teaching position[2]					
Yes	56.8	40.2	3.0	77.6	22.4
No	54.5	40.1	5.3	75.8	24.1
Whether accepted offer[3]					
Yes	56.9	39.9	3.2	77.1	22.9
No	58.1	41.1	0.8	83.9	16.1
Expects to be teaching in 2 years					
Teachers					
Yes	59.3	43.9	2.8	75.7	24.4
No	69.4	28.1	2.5	83.0	17.0
Nonteachers					
Yes	54.0	40.1	5.8	74.6	25.4
No	65.4	30.4	4.2	79.8	20.3
Expects to be teaching in long term					
Teachers					
Yes	53.1	44.1	2.8	75.0	25.0
No	65.1	32.2	2.8	82.3	17.7
Nonteachers					
Yes	54.9	38.8	6.3	73.7	26.3
No	65.9	30.0	4.2	80.0	20.0

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Defined for those who applied for at least one teaching position.

[3] Defined for those who were offered at least one teaching position.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C2.5—Percentage distribution of 1992–93 bachelor's degree recipients[1] according to employment status in April 1994, by selected teaching-related characteristics: 1994

	Not in labor force	Unemployed	Working part time	Working full time
Total	8.7	4.6	13.7	73.0
Status in teacher pipeline				
Not in teacher pipeline	9.0	4.3	11.9	74.7
In teacher pipeline	7.7	5.4	18.7	68.2
Nonteachers	9.4	6.5	19.3	64.9
Considering only	8.9	6.6	15.6	68.8
Prepared only	10.8	6.2	30.5	52.6
Taught	4.0	3.0	17.6	75.4
	Graduates in teacher pipeline			
Whether applied for teaching position				
Yes	4.0	5.7	21.1	69.2
No	10.9	5.2	16.6	67.4
Whether offered teaching position[2]				
Yes	3.9	4.8	16.9	74.4
No	3.9	8.1	32.2	55.8
Whether accepted offer[3]				
Yes	3.7	4.4	15.8	76.1
No	5.5	8.4	25.2	60.9
Expects to be teaching in 2 years				
Teachers				
Yes	2.3	2.2	16.1	79.3
No	8.7	4.3	22.3	64.6
Nonteachers				
Yes	9.6	11.4	29.1	50.0
No	10.0	4.6	15.3	70.2
Expects to be teaching in long term				
Teachers				
Yes	2.4	2.4	18.4	76.8
No	6.2	3.7	16.5	73.7
Nonteachers				
Yes	10.5	9.8	26.6	53.1
No	9.1	5.3	16.3	69.3

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.
[2] Defined for those who applied for at least one teaching position.
[3] Defined for those who were offered at least one teaching position.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

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Table C2.6—Percentage distribution of 1992–93 bachelor's degree recipients* according to annual salary received for April 1994 job, by status in teacher pipeline: 1994

	Less than $5,000	$5,000–9,999	$10,000–14,999	$15,000–19,999	$20,000–24,999	$25,000–34,999	$35,000–49,999	$50,000
Total	3.6	8.6	15.7	19.2	19.9	21.5	8.6	2.9
Status in teacher pipeline								
Not in teacher pipeline	3.3	7.4	13.2	18.5	20.0	23.8	10.3	3.5
In teacher pipeline	4.2	12.1	22.5	21.1	19.6	15.2	4.0	1.3
Nonteachers	4.8	13.3	21.7	20.6	16.0	16.5	5.3	1.7
Considering only	4.2	11.6	18.4	20.9	17.6	19.0	6.5	1.9
Prepared only	6.8	18.5	31.8	19.9	11.0	9.0	1.7	1.2
Taught	3.1	9.8	24.0	22.0	27.2	11.9	1.4	0.6

*Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Section III: Academic Experiences of 1992-93 Bachelor's Degree Recipients in the Teacher Pipeline

- About 10 percent of all 1992-93 bachelor's degree recipients reported that they had taken at least one remedial course in college (table 3.2). Neither teachers nor those who had only prepared to teach were more likely than their classmates outside the pipeline to have reported taking remedial courses. {t's ≤ 1.73} However, 14 percent of those who were only considering teaching in 1994 reported having taken remedial courses, compared with 9 percent of those who were not in the pipeline. {t = 3.3, K = 6, CV = 2.64} Education majors were no more or less likely than graduates in other majors to have reported taking remedial courses. {t's ≤ 2.07, K = 15, CV = 2.93}

- The amount of time between graduates' entry into postsecondary education and receipt of the bachelor's degree was not associated with their teaching status. {t's on all comparisons among pipeline categories ≤ 1.86} However, compared with those who taught in public schools, those who taught in private schools were significantly more likely to have earned their degrees in four years or less (57 percent compared with 27 percent) {t = 4.20} and less likely to taken more than 6 years to earn their degrees (15 percent compared with 34 percent) (table 3.7). {t = 3.93}

- Although they took no more time to complete their bachelor's degrees, those more inclined to teach earned more credits toward their bachelor's degrees than their classmates who were less inclined. Those who taught or only prepared to teach earned between 140 and 142 credits, compared with the 133-135 credits earned by those who were only considering teaching or who were not in the pipeline (table 3.8). {t's ≥ 3.18, CV = 2.64, K = 6}

- Among teachers, those who expected to teach in the future were less likely than their colleagues who did not expect to teach in the future both to be enrolled in school in April 1994 and to be enrolled full time. For example, 5 percent of teachers who expected to be teaching in 2 years were enrolled full time, compared with 19 percent of teachers who did not expect to be teaching in 2 years (table 3.12). {t = 3.38, conservative K = 3, CV = 2.39} In contrast, nonteachers who expected to teach in 2 years were more likely than nonteachers who did not expect to teach in 2 years to be enrolled and more likely to be enrolled full time. {t's ≥ 3.47, conservative K = 3, CV = 2.39}

- Graduates' educational expectations varied consistently with their inclinations to teach. Compared with graduates who were not in the teacher pipeline, those in the pipeline were less likely to expect that bachelor's or professional degrees would be their highest degrees and more likely to expect that master's or doctoral degrees would be their terminal degrees (table 3.12). {t's ≥ 5.01} Similarly, among those in the pipeline, those who expected to teach in the future were more likely than those who did not expect to teach in the future to expect that their highest degree would be a master's. {4 t's ≥ 2.84; for each comparison conservative K = 6, CV = 2.64}

Table C3.1—Percentage of 1992–93 bachelor's degree recipients* for whom college entrance examination scores were available; and of those with scores, percentage distribution according to score quartile, by selected teaching-related characteristics: 1994

	Test scores available	Of those with test scores		
		Top quartile	Middle half	Bottom quartile
Total	69.1	25.3	51.9	22.9
Status in teacher pipeline				
Not in teacher pipeline	69.4	26.4	51.6	22.0
In teacher pipeline	68.5	22.1	52.6	25.3
Nonteachers	67.8	23.5	51.8	24.7
Considering only	68.7	25.2	51.4	23.4
Prepared only	64.5	17.7	53.4	28.9
Taught	69.9	18.4	55.5	26.2
Baccalaureate degree major				
Business and management	66.1	19.1	54.7	26.2
Education	70.6	15.7	54.6	29.7
Humanities	69.8	32.7	49.4	17.9
Mathematics, computer science, natural sciences	76.0	38.1	48.3	13.6
Social sciences	70.3	26.4	52.9	20.7
Other	64.1	18.3	51.7	30.1
	Teachers			
Sector of school at which taught				
Public	68.0	16.6	55.2	28.2
Private	82.6	32.1	48.4	19.5
Level of school at which taught				
Elementary	67.2	11.7	56.8	31.5
Secondary	74.7	28.6	49.7	21.7
Combined	76.2	29.2	59.0	11.8
Main field taught				
General elementary	65.5	5.4	51.7	42.9
English, reading	72.2	23.8	49.0	27.3
Mathematics, computer science	68.9	21.2	68.7	10.1
Natural sciences	77.9	22.7	61.3	16.1
Social studies	84.3	—	—	—
Bilingual, ESL, foreign languages	74.6	25.1	45.2	29.7
Fine or performing arts	73.6	28.8	36.6	34.6
Vocational education	61.4	13.7	66.2	20.2
Special education	71.2	11.7	61.2	27.1
Other	64.0	27.1	54.8	18.1
	Graduates in teacher pipeline			
Expects to be teaching in 2 years				
Teachers				
Yes	68.7	14.0	56.5	29.5
No	74.6	30.9	52.9	16.3
Nonteachers				
Yes	62.3	15.8	55.6	28.7
No	70.1	26.7	50.6	22.7

Table C3.1—Percentage of 1992-93 bachelor's degree recipients* for whom college entrance examination scores were available; and of those with scores, percentage distribution according to score quartile, by selected teaching-related characteristics: 1994—Continued

	Test scores available	Of those with test scores Top quartile	 Middle half	 Bottom quartile
Expects to be teaching in long term				
Teachers				
Yes	68.8	16.2	53.8	30.0
No	75.7	22.5	58.8	18.7
Nonteachers				
Yes	63.8	16.5	55.7	27.7
No	70.2	26.4	50.3	23.3

—Too few cases for a reliable estimate.

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.2—Percentage distributions of 1992-93 bachelor's degree recipients[1] according to type of postsecondary institution first attended after high school and whether they had taken remedial instruction in college, by selected teaching-related characteristics: 1994

	First postsecondary institution attended after high school			Ever taken remedial instruction[2]	
	Less than 4-year	Public, 4-year	Private, 4-year	Yes	No
Total	17.3	54.8	27.9	9.6	90.4
Status in teacher pipeline					
Not in teacher pipeline	16.8	55.5	27.8	8.5	91.5
In teacher pipeline	18.8	53.0	28.3	12.5	87.5
Nonteachers	18.1	52.3	29.6	13.2	86.8
Considering only	17.0	51.9	31.1	13.7	86.3
Prepared only	21.4	53.6	25.0	11.9	88.1
Taught	20.6	54.5	24.8	10.8	89.2
Baccalaureate degree major					
Business and management	19.4	54.7	26.0	7.5	92.5
Education	19.6	56.2	24.2	10.1	89.9
Humanities	16.0	45.3	38.8	10.2	89.8
Mathematics, computer science, natural sciences	14.4	57.1	28.5	7.5	92.5
Social sciences	14.0	54.1	31.9	10.5	89.5
Other	20.0	58.1	21.9	13.4	86.6
	Teachers				
Sector of school at which taught					
Public	23.0	57.7	19.2	8.9	91.1
Private	9.8	46.2	43.9	11.9	88.1
Level of school at which taught					
Elementary	22.4	55.4	22.2	10.8	89.2
Secondary	19.6	59.1	21.3	7.3	92.7
Combined	17.6	30.9	51.5	10.9	89.1
Main field taught					
General elementary	18.1	57.5	24.4	12.4	87.6
English, reading	20.8	63.9	15.3	7.5	92.5
Mathematics, computer science	20.6	51.4	28.0	4.4	95.6
Natural sciences	23.6	48.3	28.1	13.9	86.1
Social studies	23.7	55.6	20.7	10.9	89.1
Bilingual, ESL, foreign languages	11.5	57.0	31.5	8.6	91.4
Fine or performing arts	23.0	52.2	24.8	8.4	91.6
Vocational education	21.8	54.8	23.4	17.2	82.8
Special education	25.9	54.6	19.5	8.9	91.1
Other	16.5	48.6	34.8	13.1	86.9
	Graduates in pipeline				
Expects to be teaching in 2 years					
Teachers					
Yes	21.1	57.3	21.6	10.7	89.3
No	19.2	46.3	34.5	10.9	89.1
Nonteachers					
Yes	20.8	54.2	25.0	15.1	84.9
No	17.0	52.7	30.3	12.2	87.8

Table C3.2—Percentage distributions of 1992–93 bachelor's degree recipients[1] according to type of postsecondary institution first attended after high school and whether they had taken remedial instruction in college, by selected teaching-related characteristics: 1994—Continued

	First postsecondary institution attended after high school			Ever taken remedial instruction[2]	
	Less than 4-year	Public, 4-year	Private, 4-year	Yes	No
Expects to be teaching in long term					
Teachers					
Yes	20.3	58.3	21.4	10.4	89.6
No	20.2	49.1	30.8	12.1	87.9
Nonteachers					
Yes	20.2	54.4	25.4	13.9	86.1
No	17.1	53.2	29.7	12.5	87.5

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] These data are students' self-reports of having taken remedial instruction in reading, mathematics, writing, and study skills. The estimates reported can be both higher and lower than those derived from transcript data for at least three reasons: 1) transcript variables report courses taken in specific subject areas, and therefore may result in lower estimates than the self-reports, which combine subject areas, in particular, remedial courses, which schools may not grant credit toward graduation; 2) estimates from transcript data may also be lower because the transcript(s) collected may not include all courses a student had taken; and 3) estimates from transcripts could be higher if graduates' definitions of "remedial instruction" differed from those employed in this study, e.g., they did not consider a precollegiate mathematics course to be remedial instruction.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.3—Percentage of 1992-93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded at least one course attempted in precollegiate mathematics or remedial English, average number of credits earned in each field, and GPA in each field, by selected teaching-related characteristics: 1994

	Precollegiate mathematics			Remedial English		
	Percent with course	Average number of credits[3]	GPA[3]	Percent with course	Average number of credits[3]	GPA[3]
Total	12.5	3.9	2.77	8.7	3.5	3.13
Status in teacher pipeline						
Not in teacher pipeline	11.7	3.8	2.75	8.1	3.5	3.10
In teacher pipeline	14.9	4.1	2.79	10.3	3.3	3.21
Nonteachers	14.3	4.0	2.84	9.8	3.4	3.14
Considering only	12.7	4.0	2.84	9.7	3.3	3.14
Prepared only	19.4	3.9	2.84	10.2	3.8	3.15
Taught	16.8	4.2	2.70	11.9	3.2	3.35
Baccalaureate degree major						
Business and management	13.2	3.8	2.91	7.8	3.7	3.05
Education	17.9	4.1	2.77	12.5	3.3	3.29
Humanities	10.7	3.8	2.62	6.5	3.3	3.05
Mathematics, computer science, natural sciences	8.5	4.1	2.82	8.5	3.6	3.19
Social sciences	11.3	3.5	2.64	7.3	3.6	3.05
Other	14.8	4.0	2.70	10.2	3.2	3.13
		Teachers				
Sector of school at which taught						
Public	18.5	4.2	2.66	11.6	3.5	3.39
Private	8.7	—	—	12.8	—	—
Level of school at which taught						
Elementary	19.8	4.4	2.71	14.4	3.7	3.38
Secondary	11.1	—	—	8.9	—	—
Combined	16.3	—	—	11.1	—	—
Main field taught						
General elementary	26.0	4.6	2.70	12.2	—	—
English, reading	11.2	—	—	18.6	—	—
Mathematics, computer science	18.5	—	—	13.0	—	—
Natural sciences	12.3	—	—	7.8	—	—
Social studies	10.1	—	—	11.3	—	—
Bilingual, ESL, foreign languages	4.8	—	—	6.8	—	—
Fine or performing arts	16.3	—	—	8.1	—	—
Vocational education	22.6	—	—	15.4	—	—
Special education	17.1	—	—	8.3	—	—
Other	12.8	—	—	16.6	—	—
		Graduates in teacher pipeline				
Expects to be teaching in 2 years						
Teachers						
Yes	17.3	4.3	2.76	12.7	3.2	3.31
No	15.2	—	—	8.8	—	—
Nonteachers						
Yes	16.9	4.0	2.87	9.3	3.5	3.05
No	13.2	3.9	2.81	9.9	3.4	3.14

Table C3.3—Percentage of 1992-93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded at least one course attempted in precollegiate mathematics or remedial English, average number of credits earned in each field, and GPA in each field, by selected teaching-related characteristics: 1994—Continued

	Precollegiate mathematics			Remedial English		
	Percent with course	Average number of credits[3]	GPA[3]	Percent with course	Average number of credits[3]	GPA[3]
Expects to be teaching in long term						
Teachers						
Yes	17.1	4.2	2.70	12.4	3.1	3.36
No	16.4	4.3	2.63	10.2	3.6	3.26
Nonteachers						
Yes	16.9	4.1	3.03	8.8	3.5	3.15
No	13.4	3.8	2.71	11.1	3.4	3.13

—Too few cases for a reliable estimate.

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

[2] Transcripts were collected from degree-granting institutions only and may not include postsecondary credits earned at other institutions. See appendix B for details on transcript data.

[3] Average credits/GPA for those with some credit in each field.

NOTE: These data are derived from graduates' transcripts. The estimates reported can be both higher and lower than students' self-reports for at least three reasons: 1) transcript variables report courses taken in specific subject areas, and therefore may result in lower estimates than the self-reports, which combine subject areas; 2) estimates from transcript data may also be lower because the transcript(s) collected may not include all courses a student had taken; and 3) estimates from transcripts could be higher if graduates' definitions of "remedial instruction" differed from those employed in this study, e.g., they did not consider a precollegiate mathematics course to be remedial instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.4—Percentage of 1992-93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded credit earned in advanced mathematics or calculus, science or engineering, and education, average number of credits earned in each field, and GPA in each field, by selected teaching-related characteristics: 1994

	Advanced math or calculus			Science/engineering			Education		
	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]
Total	31.0	7.3	2.68	75.5	18.3	2.67	26.4	18.0	3.41
Status in teacher pipeline									
Not in teacher pipeline	34.5	7.0	2.69	75.1	19.8	2.76	16.6	6.1	3.38
In teacher pipeline	21.2	8.4	2.62	76.6	14.1	2.69	54.0	28.3	3.44
Nonteachers	23.5	8.0	2.63	78.1	15.2	2.67	43.6	21.3	3.37
Considering only	26.0	7.9	2.58	77.1	16.8	2.65	26.9	7.4	3.21
Prepared only	15.9	8.4	2.84	81.3	10.4	2.72	94.9	33.5	3.51
Taught	16.7	10.0	2.61	76.4	11.6	2.75	80.4	37.0	3.51
Baccalaureate degree major									
Business and management	35.8	4.3	2.66	64.0	7.1	2.79	11.2	4.9	3.47
Education	15.5	6.2	2.70	77.5	9.5	2.66	80.9	36.9	3.46
Humanities	16.4	5.0	2.58	68.3	8.9	2.69	27.1	10.5	3.43
Mathematics, computer science, natural sciences	65.0	10.8	2.77	90.6	46.0	2.88	17.2	9.9	3.39
Social sciences	21.7	5.6	2.52	76.8	8.6	2.66	28.1	7.3	3.29
Other	14.3	5.2	2.52	77.0	14.8	2.65	20.6	6.7	3.38
Teachers									
Sector of school at which taught									
Public	17.6	10.4	2.70	75.9	11.9	2.75	84.4	37.9	3.54
Private	15.7	—	—	71.5	11.0	2.82	66.8	36.3	3.51
Level of school at which taught									
Elementary	12.5	7.7	2.76	74.5	10.7	2.75	87.9	42.9	3.53
Secondary	26.5	12.8	2.73	76.8	14.0	2.87	77.6	27.6	3.54
Combined	16.8	—	—	69.3	11.3	2.88	75.0	34.7	3.57
Main field taught									
General elementary	8.0	—	—	75.6	9.0	2.73	90.2	43.7	3.51
English, reading	7.7	—	—	71.2	8.5	2.66	88.0	36.6	3.58
Mathematics, computer science	52.4	18.2	2.94	78.4	10.1	2.86	73.2	32.1	3.56
Natural sciences	23.3	7.3	2.52	82.3	24.8	2.84	83.5	35.8	3.57
Social studies	9.9	—	—	82.9	—	—	83.3	23.6	3.65
Bilingual, ESL, foreign languages	21.0	—	—	67.6	6.6	2.89	65.0	26.0	3.52
Fine or performing arts	0.9	—	—	67.2	6.9	2.75	76.3	20.3	3.43
Vocational education	15.4	—	—	72.0	9.6	2.55	58.2	31.5	3.46
Special education	7.6	—	—	73.3	8.7	2.68	88.2	49.0	3.46
Other	16.2	—	—	80.3	12.3	2.57	70.2	33.7	3.44
Graduates in teacher pipeline									
Expects to be teaching in 2 years									
Teachers									
Yes	15.7	11.2	2.68	76.3	10.8	2.77	89.7	39.1	3.53
No	19.6	7.6	2.44	76.5	14.3	2.65	53.4	26.4	3.46

Table C3.4—Percentage of 1992–93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded credit earned in advanced mathematics or calculus, science or engineering, and education, average number of credits earned in each field, and GPA in each field, by selected teaching-related characteristics: 1994—Continued

	Advanced math or calculus			Science/engineering			Education		
	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]
Nonteachers									
Yes	20.1	6.7	2.50	77.8	10.9	2.62	67.7	30.5	3.40
No	24.7	8.7	2.64	79.2	17.4	2.70	33.9	13.7	3.37
Expects to be teaching in long term									
Teachers									
Yes	15.6	11.2	2.69	75.1	11.0	2.76	87.8	39.1	3.54
No	18.2	8.5	2.55	78.9	12.7	2.74	67.8	32.3	3.47
Nonteachers									
Yes	21.5	7.4	2.67	77.6	11.9	2.64	64.3	28.2	3.37
No	24.8	8.4	2.58	79.4	17.1	2.69	34.6	14.6	3.38

—Too few cases for a reliable estimate.

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Transcripts were collected from degree-granting institutions only and may not include postsecondary credits earned at other institutions. See appendix B for details on transcript data.

[3] Average credits/GPA for those with some credit in each field.

NOTE: Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.5—Percentage of 1992–93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded credit earned in the social sciences and humanities, average number of credits earned in each field, and GPA in each field, by selected teaching-related characteristics: 1994

	Social sciences			Humanities		
	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]
Total	89.0	23.4	2.96	87.9	18.1	3.06
Status in teacher pipeline						
Not in teacher pipeline	88.5	23.6	2.97	87.5	17.6	3.06
In teacher pipeline	90.3	22.9	2.91	88.8	19.5	3.06
Nonteachers	91.9	24.4	2.92	90.7	19.8	3.03
Considering only	91.8	25.3	2.91	91.3	20.4	3.03
Prepared only	91.9	21.4	2.96	88.8	18.1	3.04
Taught	90.6	19.6	2.90	88.4	18.6	3.12
Baccalaureate degree major						
Business and management	87.8	19.9	2.90	85.6	14.2	3.04
Education	91.3	20.1	2.85	89.3	21.0	3.06
Humanities	87.4	21.2	2.98	92.6	32.6	3.14
Mathematics, computer science, natural sciences	89.5	16.6	3.08	89.2	14.1	3.13
Social sciences	95.7	44.8	3.04	90.1	20.0	2.99
Other	84.4	19.2	2.88	84.5	15.7	3.00
	Teachers					
Sector of school at which taught						
Public	90.3	19.1	2.90	87.2	17.3	3.13
Private	83.8	19.8	2.92	84.2	23.4	3.18
Level of school at which taught						
Elementary	88.7	18.6	2.89	86.8	17.4	3.12
Secondary	91.6	21.0	3.00	87.7	18.8	3.23
Combined	83.7	19.4	3.02	83.2	20.3	3.19
Main field taught						
General elementary	89.9	21.2	2.86	87.2	16.8	3.05
English, reading	88.7	17.0	2.90	92.1	27.9	3.17
Mathematics, computer science	83.7	15.9	2.95	82.3	15.6	3.22
Natural sciences	93.4	17.5	2.94	90.9	14.4	3.15
Social studies	91.1	46.0	3.35	87.8	17.5	3.28
Bilingual, ESL, foreign languages	92.4	17.3	3.02	82.3	41.8	3.33
Fine or performing arts	84.9	13.0	2.83	93.6	19.7	3.09
Vocational education	99.2	16.7	2.74	88.8	10.4	2.93
Special education	89.7	18.3	2.81	87.1	16.4	3.08
Other	87.3	20.8	2.86	87.3	17.5	3.04
	Graduates in teacher pipeline					
Expects to be teaching in 2 years						
Teachers						
Yes	90.9	18.6	2.90	88.4	17.7	3.12
No	88.7	23.0	2.89	88.2	20.8	3.09
Nonteachers						
Yes	92.0	23.7	2.88	90.7	19.3	2.98
No	92.0	24.5	2.94	90.8	19.7	3.05

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Table C3.5—Percentage of 1992–93 bachelor's degree recipients[1] whose undergraduate transcripts[2] recorded credit earned in the social sciences and humanities, average number of credits earned in each field, and GPA in each field, by selected teaching-related characteristics: 1994—Continued

	Social sciences			Humanities		
	Percent earned credit	Average number of credits[3]	GPA[3]	Percent earned credit	Average number of credits[3]	GPA[3]
Expects to be teaching in long term						
Teachers						
Yes	89.6	18.4	2.90	87.1	17.3	3.13
No	91.1	22.1	2.89	89.9	20.6	3.10
Nonteachers						
Yes	92.1	23.6	2.88	90.0	19.4	3.02
No	91.8	25.1	2.95	91.0	19.5	3.03

—Too few cases for a reliable estimate.

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Transcripts were collected from degree-granting institutions only and may not include postsecondary credits earned at other institutions. See appendix B for details on transcript data.

[3] Average credits/GPA for those with some credit in each field.

NOTE: Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.6—Percentage distribution of 1992–93 bachelor's degree recipients[1] according to undergraduate major, by selected teaching-related characteristics: 1994

	Humanities[2]	Social sciences	Natural sciences	Mathematics, computer science	Engineering	Education	Business and management	Health, vocational, technical	Other
Total	10.0	15.4	8.9	4.1	6.6	11.4	25.4	8.8	9.4
Status in teacher pipeline									
Not in teacher pipeline	9.0	16.1	8.9	4.1	8.0	3.5	29.7	10.4	10.2
In teacher pipeline	12.9	13.5	8.8	3.9	2.6	33.7	13.2	4.3	7.1
Nonteachers	14.1	16.2	9.6	3.8	3.4	22.1	16.8	4.9	9.1
Considering only	15.8	18.5	11.3	4.0	4.3	8.4	21.3	6.0	10.3
Prepared only	7.9	8.9	4.3	3.2	0.6	64.1	3.1	1.4	5.4
Taught	9.7	6.9	7.1	4.0	0.6	61.8	4.3	3.1	2.4
				Teachers					
Sector of school at which taught									
Public	8.3	4.9	7.1	4.4	0.6	64.6	5.6	3.0	1.5
Private	16.2	11.9	7.7	4.5	0	56.0	0	2.1	1.6
Level of school at which taught									
Elementary	8.1	3.6	4.6	1.1	0	75.6	3.6	1.8	1.7
Secondary	10.5	7.9	11.4	9.9	1.5	47.0	8.1	1.8	1.9
Combined	16.4	6.7	11.9	6.7	0	54.5	0	3.8	0
Main field taught									
General elementary	6.9	7.0	1.4	0	0	78.4	4.5	0.7	1.1
English, reading	7.6	7.7	2.2	1.2	0	76.3	0.7	0	4.1
Mathematics, computer science	3.5	0	5.5	33.1	1.9	47.4	6.7	0	2.0
Natural sciences	5.1	4.9	25.7	1.2	0.9	58.9	2.2	0	1.0
Social studies	16.5	17.0	7.5	0	0	53.6	0	5.4	0
Bilingual, ESL, foreign languages	42.3	10.6	1.9	1.8	0	32.4	9.1	0	1.9
Fine or performing arts	39.3	1.7	0	0	0	51.4	5.5	0	2.1
Vocational education	0.9	1.5	11.7	0	1.5	39.4	13.1	28.0	3.8
Special education	5.3	4.3	3.9	0	0	80.7	3.3	1.8	0.7
Other	7.4	16.5	6.2	2.9	1.6	51.6	1.5	5.1	7.2

Table C3.6—Percentage distribution of 1992–93 bachelor's degree recipients[1] according to undergraduate major, by selected teaching-related characteristics: 1994—Continued

	Humanities[2]	Social sciences	Natural sciences	Mathematics, computer science	Engineering	Education	Business and management	Health, vocational, technical	Other
	Graduates in teacher pipeline								
Expects to be teaching in 2 years									
Teachers									
Yes	8.9	3.4	5.5	4.6	0.3	71.8	3.0	1.4	1.1
No	10.8	16.9	12.4	2.5	1.6	33.1	8.3	8.5	5.8
Nonteachers									
Yes	14.9	14.7	6.2	3.2	0.5	45.0	9.5	2.3	3.6
No	14.1	16.9	10.7	4.4	4.8	12.3	19.1	6.4	11.3
Expects to be teaching in long term									
Teachers									
Yes	8.9	4.3	5.7	3.6	0.6	70.0	3.4	1.6	1.8
No	10.8	11.4	9.9	4.8	0.8	47.3	5.7	5.9	3.5
Nonteachers									
Yes	14.8	14.2	7.1	3.8	0.9	40.9	12.0	3.0	3.3
No	13.7	17.5	10.9	4.1	4.7	13.3	18.0	6.3	11.5

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Includes literature, foreign languages, and fine and performing arts; for more detail see appendix A.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.7—Percentage distribution of 1992–93 bachelor's degree recipients* according to years between entry into postsecondary education and degree completion, and average number of years between postsecondary entry and degree completion, by selected teaching-related characteristics: 1994

	Years from postsecondary entry to BA receipt				
	4 years or less	More than 4 to 5 years	More than 5 to 6 years	More than 6 years	Average years to BA receipt
Total	35.8	28.1	10.9	25.3	6.6
Status in teacher pipeline					
Not in teacher pipeline	36.2	28.0	11.1	24.7	6.5
In teacher pipeline	34.4	28.2	10.1	27.2	6.8
Nonteachers	35.8	27.5	9.9	26.8	6.8
Considering only	37.2	26.4	10.3	26.2	6.8
Prepared only	31.4	31.2	8.8	28.6	7.4
Taught	31.5	30.1	10.6	27.9	6.5
Baccalaureate degree major					
Business and management	31.7	28.1	9.0	31.3	7.2
Education	33.2	30.2	10.9	25.7	6.7
Humanities	41.0	25.0	12.4	21.7	6.4
Mathematics, computer science, natural sciences	37.4	28.1	12.8	21.8	5.9
Social sciences	45.3	25.3	9.9	19.6	6.0
Other	30.0	30.9	11.6	27.6	7.0
	Teachers				
Sector of school at which taught					
Public	26.7	28.3	11.4	33.5	6.9
Private	57.4	23.7	4.2	14.7	5.1
Level of school at which taught					
Elementary	28.8	28.7	10.2	32.3	7.0
Secondary	31.8	29.0	12.1	27.0	6.3
Combined	57.1	21.1	0	21.8	5.0
Main field taught					
General elementary	28.1	29.2	13.3	29.4	6.8
English, reading	35.2	32.0	8.0	24.8	6.1
Mathematics, computer science	24.5	22.8	14.1	38.6	6.8
Natural sciences	29.6	30.5	10.9	29.0	6.8
Social studies	39.8	38.3	4.1	17.8	5.2
Bilingual, ESL, foreign languages	56.0	24.8	3.8	15.4	5.0
Fine or performing arts	18.3	53.0	8.3	20.4	6.3
Vocational education	26.5	20.8	8.7	44.0	7.9
Special education	25.4	33.3	12.9	28.3	6.6
Other	47.3	24.3	9.1	71.5	6.0
	Graduates in teacher pipeline				
Expects to be teaching in 2 years					
Teachers					
Yes	28.4	32.1	10.8	28.7	6.5
No	41.5	22.3	10.1	26.1	6.2
Nonteachers					
Yes	33.7	27.3	10.8	28.2	7.3
No	35.8	28.0	9.4	26.8	6.9

Table C3.7—Percentage distribution of 1992-93 bachelor's degree recipients* according to years between entry into postsecondary education and degree completion, and average number of years between postsecondary entry and degree completion, by selected teaching-related characteristics: 1994—Continued

	Years from postsecondary entry to BA receipt				
	4 years or less	More than 4 to 5 years	More than 5 to 6 years	More than 6 years	Average years to BA receipt
Expects to be teaching in long term					
Teachers					
Yes	28.9	32.1	10.1	28.9	6.7
No	37.2	27.0	12.0	23.8	5.8
Nonteachers					
Yes	35.0	26.8	11.1	27.1	7.2
No	35.2	28.0	9.6	27.3	6.9

—Too few cases for a reliable estimate.

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.8—Percentage distribution of 1992–93 bachelor's degree recipients* according to number of credits earned toward undergraduate degree and average number of credits earned, by selected teaching-related characteristics: 1994

	Percentage distribution according to number of credits				
	120 or fewer	121–135	136–150	More than 150	Average number of credits
Total	19.4	45.7	17.4	17.5	135.4
Status in teacher pipeline					
Not in teacher pipeline	20.3	46.6	16.9	16.3	135.0
In teacher pipeline	17.0	43.2	19.0	20.8	136.6
Nonteachers	19.1	44.9	17.8	18.2	135.0
Considering only	21.2	47.7	14.9	16.3	132.9
Prepared only	12.5	36.4	26.9	24.2	141.5
Taught	11.9	39.2	21.8	27.0	140.3
Baccalaureate degree major					
Business and management	22.2	48.4	15.2	14.2	132.9
Education	15.4	40.5	22.8	21.3	138.3
Humanities	24.7	46.5	14.3	14.6	131.3
Mathematics, computer science, natural sciences	12.2	39.9	23.8	24.2	141.5
Social sciences	25.3	51.7	13.1	9.9	128.9
Other	17.6	46.0	15.8	20.6	138.5
	Teachers				
Sector of school at which taught					
Public	10.0	38.1	23.0	28.9	142.2
Private	19.7	44.0	18.7	17.7	133.8
Level of school at which taught					
Elementary	10.3	42.1	24.6	23.0	140.0
Secondary	7.8	34.2	22.1	35.9	144.2
Combined	21.8	49.6	7.9	20.8	135.0
Main field taught					
General elementary	12.3	45.7	21.6	20.4	137.9
English, reading	10.3	34.4	26.1	29.1	140.2
Mathematics, computer science	7.8	34.5	20.0	37.6	143.8
Natural sciences	8.8	38.4	23.2	29.6	145.0
Social studies	10.1	43.8	37.6	8.5	134.8
Bilingual, ESL, foreign languages	9.6	58.0	13.1	19.3	133.6
Fine or performing arts	9.8	25.0	19.9	45.3	146.5
Vocational education	26.6	27.8	14.5	31.1	134.6
Special education	6.3	36.2	24.5	33.0	147.4
Other	20.2	41.4	19.0	19.4	133.6
	Graduates in teacher pipeline				
Expects to be teaching in 2 years					
Teachers					
Yes	9.8	38.5	22.6	29.2	141.2
No	17.8	41.9	20.1	20.1	137.5
Nonteachers					
Yes	17.7	42.0	19.8	20.4	137.0
No	19.2	45.8	17.5	17.5	134.8

Table C3.8—Percentage distribution of 1992-93 bachelor's degree recipients* according to number of credits earned toward undergraduate degree and average number of credits earned, by selected teaching-related characteristics: 1994—Continued

	Percentage distribution according to number of credits				
	120 or fewer	121–135	136–150	More than 150	Average number of credits
Expects to be teaching in long term					
Teachers					
Yes	10.8	37.6	23.3	28.3	141.4
No	14.6	41.9	19.1	24.4	137.5
Nonteachers					
Yes	14.6	46.0	21.0	18.4	136.3
No	20.3	45.1	16.7	17.8	134.8

—Too few cases for a reliable estimate.

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.9—Average undergraduate cumulative grade point average (GPA) among 1992–93 bachelor's degree recipients* and percentage distribution of 1992–93 bachelor's degree recipients according to cumulative undergraduate GPA, by selected teaching-related characteristics: 1994

	Average cumulative GPA	Cumulative undergraduate GPA: Less than 2.25	2.25–2.74	2.75–3.24	3.25–3.74	3.75 or higher
Total	3.17	2.4	13.6	41.3	30.0	12.8
Status in teacher pipeline						
Not in teacher pipeline	3.16	2.5	13.9	42.0	29.3	12.4
In teacher pipeline	3.19	2.0	12.8	39.3	32.1	13.9
Nonteachers	3.17	2.4	14.7	38.8	31.4	12.7
Considering only	3.12	3.1	17.4	39.0	29.7	10.9
Prepared only	3.31	0.4	6.2	38.3	36.8	18.3
Taught	3.26	1.0	8.4	40.0	33.6	16.9
Baccalaureate degree major						
Business and management	3.15	2.7	14.7	40.5	29.4	12.7
Education	3.24	1.1	10.4	39.3	33.6	15.6
Humanities	3.24	2.2	10.3	37.8	34.3	15.4
Mathematics, computer science, natural sciences	3.13	3.0	16.6	40.8	29.6	10.1
Social sciences	3.16	2.6	14.4	40.1	29.8	13.2
Other	3.16	2.2	11.7	46.7	27.7	11.7
		Teachers				
Sector of school at which taught						
Public	3.27	0.7	8.4	39.0	34.5	17.4
Private	3.29	0.9	8.0	40.0	28.5	22.4
Level of school at which taught						
Elementary	3.28	0.4	7.3	41.7	32.4	18.2
Secondary	3.26	0.7	9.9	35.9	37.9	15.6
Combined	3.25	2.3	9.4	39.4	26.2	22.7
Main field taught						
General elementary	3.26	0.6	6.3	45.8	33.8	13.5
English, reading	3.26	0	9.9	47.9	22.1	20.1
Mathematics, computer science	3.22	0.9	16.3	35.6	28.7	18.5
Natural sciences	3.23	1.5	14.2	32.5	36.4	15.4
Social studies	3.42	0	2.5	35.2	25.5	36.8
Bilingual, ESL, foreign languages	3.38	0	1.1	39.0	39.0	21.0
Fine or performing arts	3.34	0	8.5	28.7	41.6	21.2
Vocational education	3.31	0	5.2	40.3	34.3	20.2
Special education	3.23	2.0	9.0	39.5	33.2	16.3
Other	3.21	2.3	5.6	46.1	39.5	6.4
		Graduates in teacher pipeline				
Expects to be teaching in 2 years						
Teachers						
Yes	3.27	1.1	7.0	40.7	36.2	15.1
No	3.26	0.4	13.1	37.1	26.5	23.0
Nonteachers						
Yes	3.18	1.6	13.7	39.1	32.9	12.5
No	3.17	2.6	15.1	38.7	30.5	13.1

Table C3.9—Average undergraduate cumulative grade point average (GPA) among 1992–93 bachelor's degree recipients* and percentage distribution of 1992–93 bachelor's degree recipients according to cumulative undergraduate GPA, by selected teaching-related characteristics: 1994—Continued

	Average cumulative GPA	Cumulative undergraduate GPA				
		Less than 2.25	2.25–2.74	2.75–3.24	3.25–3.74	3.75 or higher
Expects to be teaching in long term						
Teachers						
Yes	3.27	0.9	7.6	38.0	37.4	16.1
No	3.25	0.4	10.0	42.9	28.8	17.9
Nonteachers						
Yes	3.19	1.4	14.5	37.6	31.6	14.9
No	3.16	2.9	14.9	38.9	30.9	12.4

*Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.10—Average GPA in undergraduate major among 1992–93 bachelor's degree recipients and percentage distribution of 1992–93 bachelor's degree recipients* according to GPA in undergraduate major, by selected teaching-related characteristics: 1994

	Average GPA in undergraduate major	GPA in undergraduate major				
		Less than 2.25	2.25–2.74	2.75–3.24	3.25–3.74	3.75 or higher
Total	3.31	1.6	6.8	40.9	27.5	23.3
Status in teacher pipeline						
Not in teacher pipeline	3.29	1.7	6.9	42.4	26.6	22.4
In teacher pipeline	3.35	1.4	6.4	36.6	29.9	25.7
Nonteachers	3.31	1.5	7.7	38.1	29.3	23.3
Considering only	3.26	1.9	9.5	41.3	27.9	19.5
Prepared only	3.48	0.4	2.2	28.4	33.9	35.0
Taught	3.44	0.9	3.4	32.6	31.0	32.0
Baccalaureate degree major						
Business and management	3.26	1.5	9.0	42.6	26.2	20.7
Education	3.42	1.1	3.1	32.8	31.6	31.3
Humanities	3.40	1.5	5.1	32.9	29.4	31.1
Mathematics, computer science, natural sciences	3.25	2.6	8.2	44.4	25.8	19.0
Social sciences	3.33	1.2	6.3	39.6	28.1	24.8
Other	3.29	1.7	5.6	44.6	27.6	20.5
		Teachers				
Sector of school at which taught						
Public	3.45	0.6	3.4	31.9	30.9	33.2
Private	3.46	2.4	2.2	27.3	30.7	37.5
Level of school at which taught						
Elementary	3.47	0.2	3.8	29.7	31.1	35.2
Secondary	3.41	1.8	2.7	34.5	31.1	29.9
Combined	3.40	2.3	2.6	34.0	29.1	31.9
Main field taught						
General elementary	3.43	0.6	2.5	35.9	30.5	30.4
English, reading	3.49	0	0	25.6	40.0	34.3
Mathematics, computer science	3.34	2.5	9.6	34.1	23.5	30.3
Natural sciences	3.40	1.5	3.6	36.5	25.8	32.5
Social studies	3.50	0	2.5	36.3	22.6	38.6
Bilingual, ESL, foreign languages	3.52	0	3.2	20.1	41.2	35.5
Fine or performing arts	3.39	0	3.9	33.9	32.3	29.9
Vocational education	3.54	0	1.9	28.3	28.1	41.7
Special education	3.46	1.1	4.5	27.7	36.3	30.4
Other	3.39	1.2	1.9	40.8	28.8	27.4
		Graduates in teacher pipeline				
Expects to be teaching in 2 years						
Teachers						
Yes	3.44	1.0	2.3	33.2	32.3	31.3
No	3.42	1.0	6.5	30.7	28.0	33.8
Nonteachers						
Yes	3.34	1.5	6.6	35.3	31.2	25.4
No	3.31	1.5	8.1	39.3	28.0	23.0

Table C3.10—Average GPA in undergraduate major among 1992-93 bachelor's degree recipients and percentage distribution of 1992-93 bachelor's degree recipients* according to GPA in undergraduate major, by selected teaching-related characteristics: 1994—Continued

	Average GPA in undergraduate major	GPA in undergraduate major				
		Less than 2.25	2.25–2.74	2.75–3.24	3.25–3.74	3.75 or higher
Expects to be teaching in long term						
Teachers						
Yes	3.44	1.2	2.7	32.0	32.8	31.4
No	3.43	0.4	4.4	34.2	27.2	33.8
Nonteachers						
Yes	3.35	1.5	6.8	35.3	28.9	27.5
No	3.30	1.5	8.4	39.1	29.4	21.6

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.11—Percentage distribution of 1992-93 bachelor's degree recipients[1] according to type of postsecondary institution from which they received their bachelor's degree, by selected teaching-related characteristics: 1994

	Public nondoctorate-granting	Public doctorate-granting	Private not-for-profit nondoctorate-granting	Private not-for-profit doctorate-granting	Other[2]
Total	22.9	42.5	17.8	13.4	3.5
Status in teacher pipeline					
Not in teacher pipeline	20.7	44.3	17.2	13.8	3.9
In teacher pipeline	28.9	37.3	19.3	12.2	2.3
Nonteachers	29.0	35.9	19.7	13.2	2.2
Considering only	26.2	37.3	20.4	13.9	2.2
Prepared only	37.7	31.6	17.5	11.2	2.0
Taught	29.1	41.5	17.1	10.1	2.3
Baccalaureate degree major					
Business and management	23.4	37.2	24.2	11.5	3.8
Education	31.0	40.1	16.5	10.8	1.6
Humanities	21.8	35.6	19.9	16.8	5.9
Mathematics, computer science, natural sciences	20.4	48.7	12.4	14.8	3.7
Social sciences	21.6	43.7	18.3	15.6	0.8
Other	21.4	48.0	13.6	12.0	4.9
	Teachers				
Sector of school at which taught					
Public	32.5	43.2	13.9	7.7	2.7
Private	20.5	33.5	30.9	15.1	0
Level of school at which taught					
Elementary	33.1	41.5	17.8	6.8	0.7
Secondary	29.1	46.0	11.9	10.2	2.4
Combined	19.5	20.6	36.9	22.9	0
Main field taught					
General elementary	35.0	39.6	17.3	7.2	0.9
English, reading	38.6	40.8	13.0	7.7	0
Mathematics, computer science	35.5	30.8	22.6	10.2	0.9
Natural sciences	27.3	39.8	17.7	12.4	2.8
Social studies	15.1	67.8	11.9	2.6	2.6
Bilingual, ESL, foreign languages	14.4	45.7	16.8	21.7	1.5
Fine or performing arts	27.5	38.4	21.5	12.6	0
Vocational education	23.0	32.8	17.9	7.8	18.5
Special education	29.6	48.8	12.3	8.6	0.7
Other	22.4	42.5	22.9	12.2	0
	Graduates in pipeline				
Expects to be teaching in 2 years					
Teachers					
Yes	33.2	41.7	16.2	7.1	1.8
No	16.1	41.8	18.9	19.2	4.1
Nonteachers					
Yes	36.6	34.7	18.6	8.9	1.2
No	25.9	36.9	19.4	15.1	2.8

Table C3.11—Percentage distribution of 1992–93 bachelor's degree recipients[1] according to type of postsecondary institution from which they received their bachelor's degree, by selected teaching-related characteristics: 1994—Continued

	Public nondoctorate-granting	Public doctorate-granting	Private not-for-profit nondoctorate-granting	Private not-for-profit doctorate-granting	Other[2]
Expects to be teaching in long term					
Teachers					
Yes	32.5	42.9	15.9	6.9	1.9
No	21.4	40.9	19.8	14.6	3.4
Nonteachers					
Yes	38.5	31.8	16.4	11.3	2.0
No	25.6	38.3	19.8	14.0	2.4

[1] Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

[2] Includes graduates of private, for-profit institutions and institutions of unknown type (i.e., 1992–93 bachelor's degree recipients who were sampled from an institution other than the degree-granting one).

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C3.12—Percentage distributions of 1992-93 bachelor's degree recipients* according to April 1994 enrollment status and highest degree expected, by selected teaching-related characteristics: 1994

	Enrollment status April 1994			Highest degree expected					
	Not enrolled	Enrolled part time	Enrolled full time	Bachelor's	Post-BA certificate	Master's	First prof. (JD, MD)	Doctoral (PhD, EdD)	Other
Total	82.3	5.7	12.0	16.3	0.6	58.8	6.4	17.1	0.9
Status in teaching pipeline									
Not in teacher pipeline	82.6	5.3	12.1	18.9	0.5	56.9	7.3	15.3	1.0
In teacher pipeline	81.4	6.7	11.9	8.9	0.6	63.9	3.8	22.0	0.8
Nonteachers	80.5	5.9	13.6	10.8	0.5	61.1	4.4	22.6	0.7
Considering only	80.6	6.0	13.4	11.0	0.6	58.8	5.3	23.7	0.6
Prepared only	80.1	5.7	14.3	10.1	0	68.1	1.5	19.4	1.0
Taught	83.1	8.6	8.2	4.7	1.1	70.2	2.5	20.6	1.0
Baccalaureate degree major									
Business and management	89.8	4.9	5.3	21.9	0.6	65.9	3.7	6.7	1.3
Education	80.8	8.6	10.6	9.2	0.7	68.5	2.1	18.7	0.8
Humanities	79.9	4.9	15.2	15.9	0.7	53.5	5.0	23.5	1.5
Mathematics, computer science, natural sciences	74.0	6.7	19.3	12.4	0.4	54.1	9.5	23.0	0.6
Social sciences	78.8	5.3	16.0	10.3	0.4	51.9	11.2	25.6	0.7
Other	85.9	4.8	9.2	22.5	0.6	57.0	5.6	13.3	1.0
			Teachers						
Sector of school at which taught									
Public	83.5	9.6	7.0	5.2	0.9	70.8	2.2	19.9	1.0
Private	84.4	11.3	4.3	2.6	4.1	65.1	6.5	20.3	1.5
Level of school at which taught									
Elementary	87.4	7.6	5.0	6.6	1.4	71.9	3.1	15.8	1.2
Secondary	81.5	12.2	6.4	1.7	2.1	65.6	3.3	26.9	0.5
Combined	81.9	15.3	2.8	6.7	0	65.4	0	24.0	3.8
Main field taught									
General elementary	85.8	8.1	6.2	7.6	0	75.1	2.5	13.6	1.2
English, reading	82.6	11.1	6.3	3.9	0	68.0	0	24.9	3.2
Mathematics, computer science	89.8	10.2	0	4.7	4.7	66.7	1.4	22.5	0
Natural sciences	86.0	9.2	4.8	6.6	0	67.9	3.4	22.1	0
Social studies	73.1	16.5	10.5	0	0.3	59.8	6.6	26.5	6.7
Bilingual, ESL, foreign languages	90.0	1.7	8.2	3.5	9.3	57.4	3.4	26.4	0
Fine or performing arts	81.6	2.0	16.5	1.6	0	67.1	4.1	25.5	1.7
Vocational education	70.1	2.4	27.5	0	0	79.8	3.2	17.0	0
Special education	80.6	11.3	8.1	5.5	0	67.1	0.9	25.9	0.6
Other	79.8	11.0	9.2	4.0	0	76.4	2.5	17.1	0
			Graduates in teacher pipeline						
Expects to be teaching in 2 years									
Teachers									
Yes	86.1	9.1	4.8	3.8	1.5	74.8	1.1	17.7	1.2
No	73.7	7.7	18.6	6.5	0	56.8	6.8	29.4	0.5

Table C3.12—Percentage distributions of 1992-93 bachelor's degree recipients* according to April 1994 enrollment status and highest degree expected, by selected teaching-related characteristics: 1994—Continued

	Enrollment status April 1994			Highest degree expected					
	Not enrolled	Enrolled part time	Enrolled full time	Bachelor's	Post-BA certificate	Master's	First prof. (JD, MD)	Doctoral (PhD, EdD)	Other
Nonteachers									
Yes	73.1	6.6	20.4	6.5	0.8	66.7	0.9	24.3	0.8
No	83.0	5.7	11.3	12.3	0.3	57.5	6.2	22.9	0.7
Expects to be teaching in long term									
Teachers									
Yes	86.6	8.7	4.7	4.8	1.8	79.4	0.8	12.2	1.0
No	76.9	8.7	14.4	3.5	0	54.0	5.6	35.8	1.1
Nonteachers									
Yes	77.4	5.5	17.1	7.5	0.9	71.9	0.8	18.3	0.6
No	81.0	6.4	12.6	12.0	0.3	54.4	6.7	25.9	0.7

*Excludes bachelor's degree recipients who had taught before receiving the 1992-93 degree or had been certified to teach 1 year or more before receiving the 1992-93 degree.

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Section IV: New Teachers' Experiences in Schools

- The types of postsecondary institutions that 1992–93 bachelor's degree recipients attended were associated with the sector of the schools in which they taught. Thirty percent of new teachers who first attended private 4-year postsecondary institutions after high school taught in private schools, compared with 14 percent of those who first attended public 4-year institutions and 8 percent of those who first attended less-than-4-year institutions. {t=2.92, 4.33; k=3; cv=2.39} Similarly, 28 percent of new teachers who received their 1992–93 bachelor's degrees from private nondoctorate-granting institutions taught in private schools, compared with 11 percent of those who graduated from public nondoctorate-granting institutions. (table C4.1) {t=3.14, k=6, cv=2.64}

- Among 1992–93 bachelor's degree recipients, college major was associated with the level at which they taught: those who majored in education were more likely than those who majored in the natural sciences, mathematics, or computer science to teach in elementary schools (70 percent compared with 28 percent), whereas those who majored in the latter areas were more likely to teach in secondary schools than were education majors (64 percent and 25 percent, respectively). (table C4.1) {t=6.68, 5.81}

- Overall, about 9 percent of new teachers had taught a subject they felt unprepared to teach in 1993–94. New teachers in both the public and private sectors, teaching at all levels, were about equally likely to have taught a subject they felt unprepared to teach. (table C4.2) {t's≤1.50}

- Forty-five percent of 1992–93 bachelor's degree recipients who were new teachers participated in teacher induction programs. Those teachers who expected to be teaching in 2 years were more likely than those who did not to have participated in teacher induction programs (48 percent versus 36 percent). Similarly, 48 percent of those who expected to be teaching long term were program participants, compared with 40 percent of those who did not expect to be teaching in the long term. (table C4.2) {t=2.25, t=2.00, k=1, cv=1.96}

- New teachers in private sector schools reported that their schools helped with discipline (88 percent) in greater proportions than did new teachers in public schools (75 percent). {t=3.27, k=, cv=1.96} However, public and private school teachers were equally likely to agree that their schools offered assistance with adjusting to the environment, instructional methods, or curriculum. (table C4.2) {t=1.73, t=1.70, t=1.28, k=1, cv=1.96}

Table C4.1—Percentage distributions of 1992–93 bachelor's degree recipients who were new teachers according to level and sector of schools in which they taught, by selected undergraduate academic and demographic characteristics: 1994

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Total	84.3	15.7	59.6	34.1	6.3
Academic characteristics					
Entrance exam scores					
Available	82.0	18.0	56.3	37.4	6.4
Bottom quartile	86.8	13.2	66.3	30.6	3.1
Middle half	83.0	17.0	59.3	33.2	7.4
Top quartile	71.9	28.1	33.3	58.7	7.9
Unavailable	90.1	9.9	64.9	30.0	5.1
First postsecondary institution attended after high school					
Less-than-4-year	92.3	7.8	63.2	31.3	5.6
Public 4-year	86.3	13.7	60.3	35.9	3.8
Private not-for-profit 4-year	70.1	29.9	56.6	30.5	12.9
Ever taken remedial instruction					
Yes	80.5	19.5	66.9	25.7	7.4
No	85.7	14.3	59.3	34.6	6.1
Baccalaureate degree major					
Business and management	—	—	—	—	—
Education	85.6	14.4	69.6	24.8	5.6
Humanities	75.7	24.3	51.4	38.7	9.9
Mathematics, computer science, natural sciences	84.9	15.1	27.6	64.0	8.4
Social sciences	67.9	32.1	40.2	51.6	8.3
Other	—	—	—	—	—
Cumulative undergraduate GPA					
Less than 2.25	—	—	—	—	—
2.25–2.74	86.3	13.7	52.2	40.8	17.0
2.75–3.24	85.3	14.7	63.1	30.7	6.2
3.25–3.74	88.2	11.8	57.2	38.0	4.8
3.75 or higher	82.3	17.7	61.6	30.4	8.0
Undergraduate GPA in major					
Less than 2.25	—	—	—	—	—
2.25–2.74	—	—	—	—	—
2.75–3.24	87.3	12.7	55.2	37.9	6.9
3.25–3.74	85.9	14.1	59.3	34.7	6.1
3.75 or higher	83.8	16.2	62.8	31.0	6.2
Degree-granting institution					
Public nondoctorate-granting	89.2	10.8	63.5	32.3	4.2
Public doctorate-granting	86.9	13.1	59.2	37.5	3.3
Private not-for-profit nondoctorate-granting	72.5	27.5	63.4	24.0	12.6
Private not-for-profit doctorate-granting	72.6	27.5	43.8	39.6	16.6
Other	—	—	—	—	—
Credits earned toward bachelor's degree					
120 or fewer	73.2	26.8	59.9	26.8	13.3
121–135	82.3	17.7	62.7	29.6	7.7
136–150	86.8	13.1	64.2	33.7	2.2
More than 150	89.7	10.3	50.0	45.3	4.7

Table C4.1—Percentage distributions of 1992–93 bachelor's degree recipients who were new teachers according to level and sector of schools in which they taught, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Years from postsecondary education entry to BA receipt					
4 years or less	71.8	28.2	55.5	34.8	9.8
More than 4, up to 5 years	85.9	14.1	60.5	35.0	4.5
More than 5, up to 6 years	93.3	6.7	59.5	40.5	0
More than 6 years	92.1	7.9	64.7	30.9	4.4
Enrollment status April 1994					
Not enrolled	84.3	15.7	61.4	32.5	6.0
Enrolled part time	83.2	16.8	47.7	43.8	8.5
Enrolled full time	89.5	10.5	55.7	40.9	3.4
Highest degree expected					
Bachelor's degree	91.4	8.6	79.6	11.6	8.8
Master's degree	85.4	14.6	61.7	32.5	5.9
First professional degree	—	—	—	—	—
Doctoral degree	84.8	15.2	47.8	45.2	7.0
Other degree	—	—	—	—	—
Demographic characteristics					
Gender					
Male	86.4	13.6	40.8	55.4	3.7
Female	83.5	16.5	66.0	26.1	7.3
Age received bachelor's degree					
22 or younger	75.2	24.8	57.0	35.0	8.0
23–24	89.9	10.1	60.1	33.6	6.3
25–29	93.2	6.8	53.3	41.4	5.3
30–39	92.9	7.1	80.9	16.1	3.0
40 or older	—	—	—	—	—
Race–ethnicity					
Minority	92.4	7.6	69.8	28.6	1.6
American Indian/Alaskan Native	—	—	—	—	—
Asian/Pacific Islander	—	—	—	—	—
Black, non-Hispanic*	—	—	—	—	—
Hispanic	91.2	8.8	74.3	25.7	0
White, non-Hispanic	83.3	16.7	57.9	35.2	6.9
Parents' educational attainment					
High school or less	86.3	13.7	63.6	32.4	4.0
Some postsecondary education	81.0	19.0	58.2	34.9	6.9
Bachelor's degree	82.2	17.8	59.5	30.8	9.6
Advanced degree	88.1	11.9	57.1	36.4	6.4
Employment status April 1994					
Not in labor force	—	—	—	—	—
Unemployed	—	—	—	—	—
Working part time	86.3	13.7	65.8	30.7	3.5
Working full time	83.7	16.3	58.7	34.1	7.2

Table C4.1—Percentage distributions of 1992-93 bachelor's degree recipients who were new teachers according to level and sector of schools in which they taught, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Marital status April 1994					
Never married	79.7	20.4	53.7	38.3	8.0
Married/cohabit as married	90.3	9.6	67.5	28.1	4.4
Divorced/separated/widowed	—	—	—	—	—
Number of children					
No children	82.1	17.9	57.8	34.9	7.3
One child or more	91.6	8.4	65.7	31.0	3.3

—Too few cases for a reliable estimate.

*Although 33 percent of black, non-Hispanic graduates entered the pipeline, only 20 percent taught, so tables that include only teachers have too few black, non-Hispanics to report estimates.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C4.2—Of 1992-93 bachelor's degree recipients who were new teachers, percentage who reported that their students or classes were more difficult than others in their schools, that they had participated in teacher induction programs, and that their schools were effective in helping new teachers with various aspects of school life, by selected teaching-related characteristics: 1994

	Taught subject not prepared to teach	Students or classes more difficult	Participated in teacher induction program	Reported school was effective in helping new teachers with:			
				Discipline	Instructional methods	Curriculum	Adjusting to school environment
Total	9.4	14.2	44.8	77.7	83.2	82.6	85.0
Sector of school at which taught							
Public	10.8	15.9	46.6	75.3	86.3	84.4	85.4
Private	8.0	9.8	45.8	88.3	76.5	77.2	91.1
Level of school at which taught							
Elementary	8.8	15.8	48.0	77.2	86.1	83.8	85.7
Secondary	14.3	15.4	40.5	74.0	84.8	82.2	85.8
Combined	9.3	8.5	46.9	87.8	74.6	79.0	94.4
Expects to be teaching in 2 years							
Yes	8.6	14.7	47.7	80.6	84.8	83.3	86.1
No	12.2	13.0	36.4	68.4	77.3	81.2	82.4
Expects to be teaching in long term							
Yes	8.6	12.3	48.3	81.3	84.7	84.0	87.2
No	11.1	18.0	39.7	71.3	80.2	81.0	81.5

NOTE: Details may not sum to 100 percent due to rounding. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Section V: Reasons for Choosing Future Jobs and Plans for the Future

- Those 1992–93 bachelor's degree recipients who were in the teacher pipeline but did not apply for teaching positions cited several reasons for not applying. As many as one-third of the respondents had not applied because they had not taken a teacher certification exam. Men were twice as likely as women not to have applied because another job offered more money (7 percent versus 3 percent). (table C5.1b) {t=2.88, k=1, cv=1.96}

- Those 1992–93 college graduates who were new teachers were less likely than those who were not in the teacher pipeline to report that income potential (34 percent versus 49 percent) or a good starting income (27 percent versus 37 percent) was important to them in selecting a future job. {t=8.73, k=1; t=7.53, k=1, cv=1.96} Prestige and status in a job were also more important to those who were not in the teacher pipeline than to the respondents who were in the pipeline (15 percent versus 7 percent). (table C5.2) {t=8.69, k=1, cv=1.96}

- Among 1992–93 college graduates in the teacher pipeline, those with college entrance examination scores in the top quartile were consistently less likely than those with scores in the bottom quartile to expect to be teaching in the future. {6 t's all ≥2.57, k=3, cv=2.39} For example, among teachers, 84 percent of those whose entrance exam scores fell in the bottom quartile expected to be teaching in 2 years, compared with 56 percent of those with scores in the top quartile. (table C5.3)

- Pipeline entrants who were married or had children had different expectations for teaching in the future than did their unmarried peers. Those who were married were more likely than those who were never married to plan to teach in 2 years (53 versus 40 percent) {t=4.50} and in the long term (50 versus 38 percent). {t=4.26} Similarly, whereas half of pipeline entrants who had children expected to be teaching in 2 years or in the long term, 43 percent of those with no children expected to be teaching in 2 years {t=2.23, k=1, cv=1.96} and 41 percent expected to be teaching in the long term. (table C5.3) {t=2.77, k=1, cv=1.96}

- Among 1992–93 bachelor's degree recipients who were new teachers, a positive relationship was found between some forms of assistance a school provided and new teachers' plans for the future. For example, those who participated in teacher induction programs were more likely than those who did not participate to plan to teach in 2 years (80 percent versus 72 percent) and in the long term (68 percent versus 60 percent). {t=2.18, t=1.96, k=1, cv=1.96} New teachers who taught in schools that assisted new teachers with discipline were also more likely than their counterparts who did not teach in such schools to plan on teaching in the future. (table C5.4) {2 yrs t=2.57 k=1; longtm t=2.68, cv=1.96}

Table C5.1a—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who did not apply for a teaching job; and of those who did not apply, percentage who did not apply for various reasons, by selected undergraduate academic and demographic characteristics: 1994

		Reason for not applying					
	Did not apply	Had teaching job	Not interested in teaching	Needed more education	Not ready to apply	Teaching jobs hard to get	Discouraged by student teaching
Total	53.3	2.0	14.6	24.4	1.6	1.5	0.8
Academic characteristics							
Entrance exam scores							
Available	53.6	1.2	15.7	23.4	1.3	1.7	0.7
Bottom quartile	48.2	1.4	17.2	24.1	1.6	2.0	0
Middle half	53.8	1.4	14.1	23.3	0.9	1.9	1.0
Top quartile	59.5	0.8	17.8	22.7	1.8	1.0	0.8
Unavailable	52.6	3.6	12.0	26.8	2.3	1.1	1.1
First postsecondary institution attended after high school							
Less-than-4-year	48.9	3.2	17.6	22.0	1.6	2.3	1.0
Public 4-year	50.9	2.7	13.9	27.3	2.0	1.1	0.5
Private not-for-profit 4-year	58.4	1.0	13.6	23.1	1.6	1.4	1.2
Ever taken remedial instruction							
Yes	53.2	2.5	15.8	26.7	1.5	1.8	0.7
No	53.2	1.7	14.4	24.1	1.6	1.6	0.9
Baccalaureate degree major							
Business and management	83.2	0.8	11.3	21.4	0.8	1.2	0
Education	21.5	5.9	8.1	22.3	0.8	3.8	2.1
Humanities	58.5	0.9	14.9	26.9	3.0	1.8	0
Mathematics, computer science, natural sciences	62.3	0.6	13.3	23.1	3.2	0.6	0.3
Social sciences	68.2	1.4	15.1	36.1	0.9	1.8	1.8
Other	76.8	3.3	24.3	77.6	1.1	0.8	1.2
Cumulative undergraduate GPA							
Less than 2.25	65.5	—	—	—	—	—	—
2.25–2.74	62.6	1.8	18.1	23.4	2.0	1.7	0.4
2.75–3.24	53.0	1.7	15.6	25.3	1.1	0.8	1.2
3.25–3.74	49.0	1.0	12.3	28.1	2.7	2.9	0.2
3.75 or higher	51.9	4.8	12.3	19.2	0.4	1.1	1.5
Undergraduate GPA in major							
Less than 2.25	44.8	—	—	—	—	—	—
2.25–2.74	69.2	0	23.0	20.6	2.2	0	0
2.75–3.24	58.4	1.8	11.9	26.3	1.6	1.6	0.3
3.25–3.74	50.5	1.3	16.3	22.8	2.2	1.2	0.6
3.75 or higher	45.7	3.4	13.1	25.3	0.8	2.2	1.6
Degree-granting institution							
Public nondoctorate-granting	47.3	1.6	14.3	23.0	1.8	0.6	0.5
Public doctorate-granting	52.8	1.6	13.9	27.0	1.9	2.5	0.6
Private not-for-profit nondoctorate-granting	55.9	1.5	15.6	21.4	1.5	1.1	0.5
Private not-for-profit doctorate-granting	63.7	0	16.3	24.8	0.9	1.5	2.6
Other	62.3	—	—	—	—	—	—

Table C5.1a—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who did not apply for a teaching job; and of those who did not apply, percentage who did not apply for various reasons, by selected undergraduate academic and demographic characteristics: 1994 —Continued

		Reason for not applying					
	Did not apply	Had teaching job	Not interested in teaching	Needed more education	Not ready to apply	Teaching jobs hard to get	Discouraged by student teaching
Credits earned toward bachelor's degree							
120 or fewer	62.4	4.9	15.2	28.7	3.8	1.6	0.3
121–135	57.4	1.2	14.8	24.9	1.5	0.8	1.0
136–150	45.0	0.9	14.7	21.7	1.0	1.8	1.8
More than 150	44.8	1.6	13.1	20.3	0.3	3.0	0.3
Years from postsecondary education entry to BA receipt							
4 years or less	56.1	1.4	13.9	27.0	2.0	1.0	1.0
More than 4, up to 5 years	50.9	2.0	16.0	22.3	1.0	2.3	1.1
More than 5, up to 6 years	52.8	1.6	13.7	25.9	0.7	1.8	0.6
More than 6 years	53.6	3.0	13.9	22.6	2.2	1.5	0.5
Enrollment status April 1994							
Not enrolled	51.8	1.6	15.7	21.6	1.3	1.8	0.8
Enrolled part time	47.4	1.3	13.9	21.0	3.2	0	2.3
Enrolled full time	67.7	4.3	9.2	40.8	2.7	0.5	0.4
Highest degree expected							
Bachelor's degree	69.1	0.3	23.4	19.5	1.1	1.1	2.7
Master's degree	48.8	2.7	12.5	23.3	1.5	1.6	0.3
First professional degree	67.7	0	22.2	12.3	6.3	0	0
Doctoral degree	58.8	1.4	14.1	31.4	1.3	2.0	1.4
Other degree	34.9	—	—	—	—	—	—
Demographic characteristics							
Gender							
Male	64.6	2.3	16.1	20.3	2.0	0.8	1.4
Female	47.2	1.7	13.4	27.5	1.3	2.1	0.5
Age received bachelor's degree							
22 or younger	52.6	1.4	15.7	25.1	1.9	1.6	1.1
23–24	54.6	1.3	16.0	23.9	1.0	1.4	0.6
25–29	51.0	6.5	9.6	20.6	0.4	2.5	0.7
30–39	53.8	0.3	12.8	27.2	0.4	0.6	0.6
40 or older	57.1	3.3	12.0	25.1	6.0	1.2	0.9
Race–ethnicity							
Minority	58.4	1.9	17.0	26.5	0.5	2.8	0.7
American Indian/Alaskan Native	—	—	—	—	—	—	—
Asian/Pacific Islander	70.2	2.7	7.0	12.0	1.3	0	2.3
Black, non-Hispanic	62.0	2.1	19.1	31.9	0	3.0	0
Hispanic	49.8	1.3	18.8	26.4	1.0	4.2	1.2
White, non-Hispanic	52.2	2.0	13.9	24.0	1.8	1.3	0.8
Parents' educational attainment							
High school or less	48.3	1.4	14.8	24.6	0.6	1.3	0.4
Some postsecondary education	54.3	5.4	17.4	22.1	2.0	2.4	1.2
Bachelor's degree	53.6	0.3	13.9	21.6	2.0	0.7	1.1
Advanced degree	58.3	1.0	13.5	28.6	2.3	1.4	0.9

Table C5.1a—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who did not apply for a teaching job; and of those who did not apply, percentage who did not apply for various reasons, by selected undergraduate academic and demographic characteristics: 1994 —Continued

		Reason for not applying					
	Did not apply	Had teaching job	Not inter-ested in teaching	Needed more educa-tion	Not ready to apply	Teaching jobs hard to get	Discour-aged by student teaching
Employment status April 1994							
Not in labor force	75.8	1.7	9.2	27.4	2.2	0	1.0
Unemployed	50.8	0.3	4.8	31.9	4.6	0	0
Working part time	47.3	1.4	18.2	24.2	1.7	3.3	1.1
Working full time	52.7	2.3	15.3	23.3	1.3	1.5	0.8
Marital status April 1994							
Never married	57.2	1.7	15.1	24.3	2.0	1.5	0.9
Married/cohabit as married	45.4	2.2	14.2	23.5	0.6	1.8	0.9
Divorced/separated/widowed	60.0	3.5	10.4	31.4	2.7	0	0
Number of children							
No children	54.2	1.6	14.3	25.4	1.9	1.7	0.9
One child or more	50.5	3.0	15.6	20.7	0.6	0.8	0.7

—Too few cases for a reliable estimate.

NOTE: Respondents may have chosen more than one reason for not applying. Other reasons are presented in table C5.1b. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C5.1b—Of 1992–93 bachelor's degree recipients in the teacher pipeline who did not apply for a teaching job, percentage who did not apply for various reasons, by selected undergraduate academic and demographic characteristics: 1994

	Reason for not applying						
	Wanted other occupation	Poor teaching conditions	Have not taken/ passed test	Low pay	More money in another job	More prestige in another job	Other reason
Total	9.1	1.1	32.7	3.4	4.8	1.6	26.3
Academic characteristics							
Entrance exam scores							
Available	10.0	1.3	30.9	4.1	4.6	1.9	26.9
Bottom quartile	11.4	0.2	33.2	1.6	3.1	3.3	25.2
Middle half	10.0	0.7	29.8	5.3	5.6	1.4	27.5
Top quartile	8.6	3.5	31.2	4.0	3.7	1.7	27.1
Unavailable	7.1	0.9	36.5	1.7	5.2	1.1	24.9
First postsecondary institution attended after high school							
Less-than-4-year	8.7	1.3	33.3	3.4	1.9	0.7	26.3
Public 4-year	9.5	0.6	33.1	2.7	5.5	1.9	25.7
Private not-for-profit 4-year	10.1	2.0	32.8	3.9	3.9	1.4	25.3
Ever taken remedial instruction							
Yes	7.2	2.5	23.3	1.3	2.0	5.2	29.3
No	9.2	1.0	34.4	3.6	5.4	1.2	25.2
Baccalaureate degree major							
Business and management	6.0	0.6	41.3	6.4	5.2	0	23.8
Education	13.1	0.7	25.8	1.5	1.9	2.8	36.7
Humanities	8.4	0.6	36.2	2.4	1.2	0.4	26.4
Mathematics, computer science, natural sciences	9.2	2.6	28.7	3.5	5.2	1.1	27.2
Social sciences	8.2	0.8	29.7	2.8	4.4	2.3	23.4
Other	10.6	1.3	2.4	2.5	9.7	3.8	21.3
Cumulative undergraduate GPA							
Less than 2.25	—	—	—	—	—	—	—
2.25–2.74	6.6	1.5	37.6	2.0	3.4	2.7	21.4
2.75–3.24	9.0	1.2	32.6	3.0	6.5	3.0	25.4
3.25–3.74	10.6	0.2	31.3	4.2	3.7	0.2	26.1
3.75 or higher	7.5	0.4	30.0	4.0	5.4	0.5	30.8
Undergraduate GPA in major							
Less than 2.25	—	—	—	—	—	—	—
2.25–2.74	11.0	1.6	30.3	3.5	5.0	2.3	21.9
2.75–3.24	8.4	1.6	34.0	3.4	3.5	1.8	26.8
3.25–3.74	8.5	0.5	33.1	4.5	6.5	1.7	23.3
3.75 or higher	10.7	1.0	28.6	3.0	5.3	0.9	29.2
Degree-granting institution							
Public nondoctorate-granting	5.8	0.3	41.6	1.7	3.0	2.6	27.4
Public doctorate-granting	9.3	1.8	29.9	4.8	5.8	1.5	25.9
Private not-for-profit nondoctorate-granting	7.4	1.0	35.1	4.5	5.2	0.9	25.8
Private not-for-profit doctorate-granting	14.6	1.4	23.8	1.9	3.7	1.6	27.2
Other	—	—	—	—	—	—	—

Table C5.1b—Of 1992-93 bachelor's degree recipients in the teacher pipeline who did not apply for a teaching job, percentage who did not apply for various reasons, by selected academic and demographic characteristics: 1994—Continued

	Reason for not applying						
	Wanted other occupation	Poor teaching conditions	Have not taken/ passed test	Low pay	More money in another job	More prestige in another job	Other reason
Credits earned toward bachelor's degree							
120 or fewer	6.9	0.3	29.8	1.6	4.6	0.9	27.9
121–135	9.1	1.0	33.0	3.7	4.0	2.0	26.4
136–150	15.0	1.0	32.5	4.6	5.4	1.1	26.4
More than 150	5.4	2.4	34.2	3.9	7.0	2.2	26.0
Years from postsecondary education entry to BA receipt							
4 years or less	8.7	0.5	29.9	3.9	4.1	1.5	25.5
More than 4, up to 5 years	10.7	0.6	38.3	3.3	3.5	3.1	25.5
More than 5, up to 6 years	6.8	0.9	26.8	4.2	4.0	2.0	27.5
More than 6 years	9.1	2.4	34.3	2.6	6.3	0.6	26.9
Enrollment status April 1994							
Not enrolled	9.1	1.3	34.2	3.7	5.1	1.5	25.7
Enrolled part time	7.4	1.0	36.5	0	4.7	3.7	26.9
Enrolled full time	9.0	0.4	23.2	3.3	3.3	1.6	28.9
Highest degree expected							
Bachelor's degree	16.2	0.8	27.9	5.9	4.8	4.2	20.8
Master's degree	7.5	0.9	34.7	2.2	4.6	1.4	27.4
First professional degree	7.4	6.2	32.5	7.8	4.3	0	26.3
Doctoral degree	10.0	1.0	29.6	4.3	5.4	1.5	25.2
Other degree	—	—	—	—	—	—	—
Demographic characteristics							
Gender							
Male	9.6	1.1	29.2	3.9	7.2	1.3	29.8
Female	8.7	1.2	35.3	3.0	2.9	1.9	23.7
Age received bachelor's degree							
22 or younger	9.7	0.6	31.4	4.0	3.7	1.7	25.0
23–24	8.8	1.4	33.5	3.0	4.1	2.8	27.1
25–29	10.8	1.0	33.8	2.4	4.4	0.4	28.4
30–39	7.9	3.4	28.8	4.0	9.5	0.4	28.4
40 or older	5.1	1.0	40.9	0.9	7.5	1.1	26.8
Race–ethnicity							
Minority	8.1	0.4	30.0	2.4	4.4	1.0	27.2
American Indian/Alaskan Native	—	—	—	—	—	—	—
Asian/Pacific Islander	17.6	0	34.5	1.0	6.9	4.8	35.7
Black, non-Hispanic	3.7	0.7	24.1	3.8	5.2	0	29.6
Hispanic	12.3	0	35.4	0	1.7	0	19.9
White, non-Hispanic	9.3	1.3	33.1	3.5	4.8	1.8	26.0
Parents' educational attainment							
High school or less	9.6	0.8	32.7	2.8	4.4	0.9	24.2
Some postsecondary education	5.9	0.3	35.4	2.8	6.0	2.4	24.6
Bachelor's degree	12.6	1.1	33.6	1.8	5.0	2.8	26.7
Advanced degree	7.8	1.9	31.5	5.8	4.1	1.1	26.8

Table C5.1b—Of 1992–93 bachelor's degree recipients in the teacher pipeline who did not apply for a teaching job, percentage who did not apply for various reasons, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Reason for not applying						
	Wanted other occu-pation	Poor teaching condi-tions	Have not taken/ passed test	Low pay	More money in another job	More prestige in another job	Other reason
Employment status April 1994							
Not in labor force	6.1	1.1	27.7	2.4	3.5	1.7	39.2
Unemployed	10.2	0	36.6	1.3	0	0	28.9
Working part time	9.5	0.4	32.7	2.0	1.7	1.9	33.3
Working full time	9.4	1.4	33.3	4.1	6.1	1.7	22.2
Marital status April 1994							
Never married	10.5	1.3	31.2	3.5	3.1	2.2	26.0
Married/cohabit as married	6.2	0.9	34.6	2.9	9.1	0.5	27.2
Divorced/separated/widowed	6.5	1.3	39.1	3.6	1.5	1.5	22.4
Number of children							
No children	9.5	1.1	31.8	3.7	4.1	1.8	26.0
One child or more	7.6	1.3	36.2	2.3	7.3	1.0	27.1

—Too few cases for a reliable estimate.

NOTE: Respondents may have chosen more than one reason for not applying. Other reasons are presented in table C5.1a. Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C5.2—Percentage of 1992–93 bachelor's degree recipients* who reported that various job characteristics were important to them in selecting a future job, by selected teaching-related characteristics: 1994

	Prestige and status	Good starting income	Good income potential	Job security	Not having to move	Interesting work	Intellectually challenging work	Freedom to make own decisions	Ability to work independently	Interaction with people	Time for nonwork-related activities
Total	13.0	34.7	45.2	35.7	15.4	41.7	44.1	23.7	18.7	31.8	20.5
Status in teacher pipeline											
Not in teacher pipeline	15.0	37.2	48.5	38.2	16.4	43.4	46.3	26.2	21.0	31.9	21.8
In teacher pipeline	7.3	27.4	35.9	28.7	12.5	37.1	38.0	16.5	12.2	31.8	16.7
Nonteachers	7.6	27.7	36.7	27.4	11.1	35.7	38.4	15.3	11.1	30.1	15.4
Considering only	8.1	28.7	39.0	28.4	10.2	35.4	40.0	15.3	12.2	29.9	15.9
Prepared only	6.2	24.6	29.9	24.5	13.8	36.8	33.4	15.4	7.8	30.8	14.0
Taught	6.6	26.8	34.0	31.9	15.9	40.3	36.6	19.6	15.1	36.1	19.8
					Graduates in teacher pipeline						
Expects to be teaching in 2 years											
Teachers											
Yes	5.9	25.6	32.8	32.3	18.0	40.5	35.8	18.2	14.3	37.9	19.4
No	8.6	28.9	37.4	30.2	9.8	39.5	39.4	23.8	17.8	29.5	21.3
Nonteachers											
Yes	5.6	25.3	30.6	27.2	12.9	35.6	33.5	12.5	8.2	33.1	14.2
No	8.5	27.4	38.4	28.2	10.1	35.6	40.5	16.0	11.9	27.8	15.4
Expects to be teaching in long term											
Teachers											
Yes	4.7	22.7	27.9	31.4	15.2	39.9	36.3	16.3	12.9	37.2	19.0
No	10.0	33.1	44.6	33.8	16.4	40.8	37.8	24.6	18.7	34.8	21.3
Nonteachers											
Yes	5.3	21.8	28.1	26.6	11.9	36.6	34.4	11.3	7.7	32.1	16.1
No	8.7	29.8	40.4	28.9	11.3	35.4	40.8	17.8	13.0	29.0	14.8

*Excludes bachelor's degree recipients who had taught before receiving the 1992–93 degree or had been certified to teach 1 year or more before receiving the 1992–93 degree.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C5.3—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who expected to be teaching in 2 years and in the long term, by selected undergraduate academic and demographic characteristics: 1994

	Expected to be teaching in 2 years			Expected to be teaching in long term		
	Total	Teachers	Non-teachers	Total	Teachers	Non-teachers
Total	44.8	75.5	30.9	42.9	63.3	33.8
Academic characteristics						
Entrance exam scores						
Available	42.9	73.9	28.5	41.0	61.1	31.7
Bottom quartile	50.2	83.7	33.5	47.3	71.6	35.6
Middle half	45.3	75.2	30.4	42.3	58.9	33.9
Top quartile	29.0	56.3	19.0	30.9	53.1	22.5
Unavailable	48.8	79.2	36.1	47.0	68.9	38.2
First secondary institution attended after high school						
Less-than-4-year	50.4	77.0	36.5	46.8	63.6	38.4
Public 4-year	47.6	79.0	32.7	45.2	67.4	35.0
Private not-for-profit 4-year	38.7	65.5	28.0	37.8	54.8	31.1
Ever taken remedial instruction						
Yes	46.4	75.9	35.6	43.1	60.7	36.5
No	44.7	76.2	30.2	43.3	64.8	33.7
Baccalaureate degree major						
Business and management	21.9	—	18.3	28.0	—	25.4
Education	75.9	86.8	62.4	66.9	71.8	61.1
Humanities	41.3	71.4	32.5	41.2	58.9	35.8
Mathematics, computer science, natural sciences	29.9	65.6	18.5	30.5	52.4	23.7
Social sciences	29.7	37.9	28.2	31.0	39.5	29.4
Other	16.4	34.7	13.2	18.8	39.0	15.2
Cumulative undergraduate GPA						
Less than 2.25	32.3	—	22.2	26.7	—	19.5
2.25-2.74	36.0	62.5	29.1	38.0	56.2	33.3
2.75-3.24	46.0	77.4	31.4	41.7	59.9	33.2
3.25-3.74	48.6	81.0	32.7	45.7	68.7	34.4
3.75 or higher	44.0	67.2	30.1	46.0	60.3	38.0
Undergraduate GPA in major						
Less than 2.25	40.0	—	—	43.1	—	—
2.25-2.74	30.6	—	26.6	32.2	—	28.9
2.75-3.24	41.9	76.6	28.5	39.4	60.9	31.1
3.25-3.74	47.6	77.8	33.0	43.7	66.8	32.9
3.75 or higher	48.2	73.7	32.8	47.1	60.7	38.9
Degree-granting institution						
Public nondoctorate-granting	53.5	86.3	38.8	52.1	72.6	43.5
Public doctorate-granting	45.4	75.3	29.8	41.7	64.6	29.9
Private not-for-profit nondoctorate-granting	42.1	72.5	30.1	38.1	58.4	29.8
Private not-for-profit doctorate-granting	29.2	53.0	21.0	33.2	45.2	29.2
Other	29.5	—	—	36.3	—	—

Table C5.3—Of 1992–93 bachelor's degree recipients in the teacher pipeline, percentage who expected to be teaching in 2 years and in the long term, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Expected to be teaching in 2 years			Expected to be teaching in long term		
	Total	Teachers	Non-teachers	Total	Teachers	Non-teachers
Credits earned toward bachelor's degree						
120 or fewer	36.4	62.9	29.0	33.3	56.0	26.7
121–135	41.6	73.9	28.9	41.3	60.8	34.0
136–150	48.9	77.6	33.4	48.8	67.8	38.8
More than 150	53.0	81.7	34.2	47.1	66.6	34.3
Years from postsecondary education entry to BA receipt						
4 years or less	40.9	68.1	30.1	40.5	57.9	33.7
More than 4, up to 5 years	47.2	81.8	30.9	44.0	67.8	32.7
More than 5, up to 6 years	48.1	76.9	34.4	44.4	59.8	37.3
More than 6 years	46.5	77.5	32.5	44.0	68.2	33.6
Enrollment status April 1994						
Not enrolled	44.2	78.3	28.1	43.2	66.2	32.6
Enrolled part time	51.8	78.6	33.9	43.2	63.4	30.4
Enrolled full time	44.4	44.2	44.4	39.7	36.1	40.7
Highest degree expected						
Bachelor's degree	26.3	63.7	19.1	31.4	69.8	24.4
Master's degree	50.1	80.1	34.3	51.1	71.7	40.4
First professional degree	11.4	—	6.1	8.4	—	5.4
Doctoral degree	41.7	64.9	32.3	29.6	37.0	26.6
Other degree	65.5	—	—	60.5	—	—
Demographic characteristics						
Gender						
Male	30.2	61.5	20.0	28.7	51.7	21.5
Female	52.8	80.9	37.8	50.8	67.8	41.7
Age received bachelor's degree						
22 or younger	42.5	71.2	30.0	41.0	59.1	33.1
23–24	46.7	80.1	30.3	44.9	66.1	34.5
25–29	46.3	73.7	30.0	40.4	58.1	30.4
30–39	47.7	89.3	32.0	46.1	80.9	33.3
40 or older	46.0	74.1	38.1	46.9	69.9	40.6
Race–ethnicity						
Minority	38.0	70.1	26.3	31.4	48.3	25.5
American Indian/Native Alaskan	—	—	—	—	—	—
Asian/Pacific Islander	24.5	—	15.4	25.6	—	17.5
Black, non-Hispanic	32.2	61.8	24.2	24.6	45.7	19.3
Hispanic	52.7	77.9	37.5	44.3	48.2	41.7
White, non-Hispanic	46.1	76.2	31.9	45.1	65.4	35.6
Parents' educational attainment						
High school or less	52.0	83.3	37.2	48.2	69.3	38.6
Some postsecondary education	41.8	72.6	28.0	42.7	63.5	33.5
Bachelor's degree	44.4	75.7	31.4	41.8	62.8	33.0
Advanced degree	38.7	68.7	25.8	39.0	57.9	30.9

Table C5.3—Of 1992-93 bachelor's degree recipients in the teacher pipeline, percentage who expected to be teaching in 2 years and in the long term, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Expected to be teaching in 2 years			Expected to be teaching in long term		
	Total	Teachers	Non-teachers	Total	Teachers	Non-teachers
Employment status April 1994						
Not in labor force	32.4	45.0	30.2	37.6	40.4	37.1
Unemployed	53.9	—	52.5	49.3	—	48.5
Working part time	52.6	68.9	46.0	51.2	65.8	45.4
Working full time	43.2	79.1	24.1	40.5	64.3	28.1
Marital status April 1994						
Never married	39.8	70.6	27.0	38.2	58.4	29.8
Married/cohabit as married	53.2	83.0	37.1	50.4	70.3	39.7
Divorced/separated/widowed	46.7	—	38.5	47.7	—	43.5
Number of children						
No children	43.2	74.1	29.5	40.9	61.0	32.0
One child or more	50.5	81.8	36.0	49.6	70.8	40.1

—Too few cases for a reliable estimate.

NOTE: Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table C5.4—Of 1992-93 bachelor's degree recipients who were new teachers, percentage who expected to be teaching in 2 years and in the long term, by selected teaching-related characteristics: 1994

	Expected to be teaching in 2 years	Expected to be teaching in long term
Total	75.5	63.3
Sector of school at which taught		
Public	80.6	65.6
Private	69.0	66.9
Level of school at which taught		
Elementary	84.8	70.0
Secondary	76.2	62.0
Combined	71.0	62.0
Participated in induction program		
Yes	80.4	67.9
No	72.1	59.8
Classes or students more difficult than others in school		
Yes	78.3	54.3
No	75.7	65.0
School helped with discipline		
Yes	79.4	66.8
No	66.8	53.5
School helped with instructional methods		
Yes	78.0	64.8
No	68.5	57.5
School helped with curriculum		
Yes	76.9	64.5
No	74.2	59.7
School helped with environment		
Yes	77.4	65.3
No	72.2	55.0

NOTE: Breakdowns may not average to totals due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Appendix A

Glossary

This glossary describes the variables used in this report. The variables were taken directly from the NCES B&B:93 Data Analysis System (DAS), an NCES software application that generates tables from the B&B data. A description of the DAS software can be found in appendix B. The labels in parentheses correspond to the names of the variables in the DAS.

The following is a list of variables that appear in this report and the glossary page number on which they can be found. In this list and the glossary that follows variables are listed alphabetically by name within topics.

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Academic characteristics

Baccalaureate degree major **(MAJORS3)**
MAJORS3 identifies a student's major at the NPSAS sample school during 1992-93. In tables 5, 6, 7, 8, 9, 10, 12, 13, C1.1, C3.1, C3.2, C3.3, C3.4, C3.5, C3.7, C3.8, C3.9, C3.10, C3.11, C3.12, C4.1, C5.1a, and C5.3, this variable was collapsed as follows:

Business and management
Education
Humanities (includes area studies; African American studies; ethnic studies; Spanish; Foreign language, non-European; foreign language, European not Spanish; letters; liberal studies; women's studies; philosophy; religious studies; commercial art; design; speech/drama; film arts; music; and art history/fine arts).
Mathematics, computer science, natural sciences (includes life sciences, physical sciences, mathematics, computer or information science, engineering)
Social sciences
Other (includes health, vocational/technical, other technical/professional, other)

In table C3.6, this variable was collapsed as follows:

Humanities (same as above).
Social sciences
Natural sciences (includes life and physical sciences)
Mathematics, computer sciences
Engineering

Education
Business and management
Other (same as above)

***Credits earned in specific subject areas* (TCRED_)**
Transcripts collected from the NPSAS institutions were analyzed to code courses according to the College Course Map (CCM), a uniform classification of college courses based on national transcript studies. In addition, credit values were normalized to semester hours, and grades earned were normalized to a four-point grade scale. Once classified according to the CCM, courses were aggregated into broad subject areas and the total number of credits earned in each of these broad subject areas was computed. The entries below list the subject areas included in this report, the variable names for the total number of credits earned in each area, and the CCM codes included in each subject area.[1] A subset of the subject areas were chosen for their relevance to the issues addressed in this report. Therefore not all students' courses are represented in these variables.

These variables were used in three ways in this report. Table C3.3 presents the proportion of graduates with transcripts that indicated that a course in precollegiate mathematics or remedial English was attempted, even if no credit was earned. Tables C3.4 and C3.5 present the proportion of graduates whose transcripts indicated that credit was earned in advanced mathematics or calculus, science or engineering, education, social sciences, or humanities. Tables C3.3 to C3.5 also present the average number of credits earned, including only credit totals greater than 0, in each of these subjects areas.

Subject area	**Variable name**	**Course codes**	**Examples of included courses**
Precollegiate mathematics	TCRED08	270100-270199 270801, 270901	Basic concepts of math, pre-algebra, plane geometry
Remedial English	TCRED06	070901, 230402, 231201, 232001, 232004, 320102	Business English, grammar and composition, basic skills
Advanced mathematics or calculus	TCRED10	270600-270799	Calculus, differential equations, Fourier analysis
Science or engineering	TCRED03	140100-149999, 260100-269999, 300101, 400100-400999	Engineering design, biology, astronomy, organic chemistry, physics

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[1] The courses included in each course code are described in the U.S. Department of Education, Office of Educational Research and Improvement, *The New College Course Map and Transcript Files: Changes in Course-Taking and Achievement, 1972-1993* (Washington, DC: U.S. Government Printing Office), 1995.

Education	TCRED07	130000-139999	Curriculum theory, educational statistics, special education
Social Sciences	TCRED02	090901-090903, 420100-429999, 440501, 450100-459999, 050100-059999	Mass media, psychology, public policy, anthropology, ethnic studies
Humanities	TCRED01	160100-169999, 230100-239999, 300401-300404, 380100-389999 500502, 500703, 500902	Foreign languages, literature, popular culture, religious studies, art history, music appreciation

Credits earned toward bachelor's degree **(TOTCRED)**

This is the total number of normalized credits earned and entered for the student on the sample school transcript, including any credits recorded as transferring from another school. This variable was averaged in a few tables and lumped into the following categories in several tables:

120 or fewer
121–135
136–150
More than 150

Cumulative undergraduate GPA **(GPACUM)**

GPACUM provides respondent's self-reported undergraduate cumulative grade point average. If respondents indicated a grading scale other than a four-point scale, grades were converted to a four-point scale.

Degree-granting institution **(SECTOR_B)**

SECTOR_B refers to the type of institution that granted the bachelor's degree to respondent.

Public nondoctorate-granting
Public doctorate-granting
Private not-for-profit, nondoctorate-granting
Private not-for-profit, doctorate-granting
Other (includes public less-than-2-year, public 2 year, private not-for-profit less-than-4-year, private for-profit less-than-2-year, and private for-profit 2-years-or-more)

Enrollment status April 1994 **(ENROL22)**
Respondents were asked about enrollment in any education after bachelor's degree and the dates of enrollment. Based on these dates, monthly enrollment indicators were constructed with the following values:

Not enrolled
Enrolled full time
Enrolled part time

Entrance exam scores **(SATACTQ)**
Students' scores on the SAT and ACT college entrance examinations were drawn from institutional records where possible, and otherwise from the student survey. Survey participants with SAT or ACT test scores were assigned a quartile rank relative to the B&B sample. Because some students took only one of the two tests, the two quartile ranks were combined into a single variable. If an SAT score was available, the SAT quartile rank was used because a larger percentage of the sample reported SAT scores. Otherwise, the ACT quartile rank was used. Those with no score available were reported separately. This group includes those who did not take either test, those who may have taken one or both tests but did not report scores, and those whose test status was unknown.

Ever taken remedial instruction **(REMEVER)**
REMEVER refers to graduates' reports of whether they had taken any remedial or developmental instruction to improve their reading, writing, math, or study skills as undergraduates.

First postsecondary institution attended after high school **(FSCTYPE)**
This variable indicates the type of institution the respondent first attended after high school graduation. It was created by looking for the earliest postsecondary enrollment after high school. Institutions begun before high school graduation were eligible if enrollment continued after high school graduation. The first institution may or may not be the institution that awarded the bachelor's degree.

Less than 4-year (includes public 2-year, private not-for-profit 2-year, private for-profit 2-year, public less than 2-year, and private for-profit less than 2-year)
Public 4-year
Private not-for-profit 4-year

GPAs in specific subject areas **(TGPA_)**
Transcripts collected from the NPSAS institutions were analyzed to code courses according to the College Course Map (CCM), a uniform classification of college courses based on national transcript studies. In addition, credit values were normalized to Carnegie units, and grades earned were normalized to a four-point grade scale. Once classified according to the CCM, courses were aggregated into broad subject areas and GPAs were computed for the courses in each subject area. Only subject areas thought to be particularly relevant to the issues addressed in this report are included in this analysis. Therefore, not all students' courses are represented in these variables.

The entries below list the subject areas and the name of the variable in the DAS that provides the GPA earned in each subject area.[2] See the entry for "Credits earned in specific subject areas" for the courses included in each subject area.

Subject area	Variable name
Precollegiate mathematics	TGPA08
Remedial English	TGPA06
Advanced mathematics or calculus	TGPA10
Science or engineering	TGPA03
Education	TGPA07
Social sciences	TGPA02
Humanities	TGPA01

Highest degree expected **(HIGHDEG)**

The educational expectations that respondents reported approximately one year after their graduation.

Bachelor's degree (respondent will not pursue further education)
Master's degree
First professional degree (law, medicine, dentistry, theology)
Doctoral degree (e.g., Ed.D., Ph.D.)
Other degree (includes sub-baccalaureate degree and post baccalaureate certificate, e.g., teaching credential)

Undergraduate GPA in major **(GPAMAJ)**

GPAMAJ refers to graduates' self-reported grade point average in courses earned toward for the undergraduate major. If respondents indicated a grading scale other than a four-point scale, grades were converted to a four-point scale.

Years from postsecondary entry to BA receipt **(BATIME2)**

Represents the number of months between the date the respondent began postsecondary education and the date of bachelor's degree receipt. If a respondent was missing either date, BATIME2 was set to missing. In a few cases, the value for BATIME2 was less than 30 months; these cases were excluded. BATIME2 was calculated for only those students receiving their first bachelor's in 1992–93.

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[2] The courses included in each course code are described in the U.S. Department of Education, Office of Educational Research and Improvement, *The New Course Map and Transcript Files: Changes in Course-Taking and Achievement, 1972-1993* (Washington, DC: U.S. Government Printing Office), 1995.

Demographic characteristics

Age received bachelor's degree **(AGEATBA)**
AGEATBA identifies the respondent's age when he/she received his/her bachelor's degree at the NPSAS school.

Annual salary at April employer **(APRANSAL)**
This variable was constructed by annualizing the wages/salary reported by respondents for their April 1994 job(s). If a respondent worked more than one job, the wages for all jobs were summed. APRANSAL was computed by multiplying the sum of the wages reported per pay period by the number of pay periods within a year.

Employment status April 1994 **(EMP0494)**
Respondents were asked to provide information for all jobs they held since graduating from college, including the beginning and ending dates. Based on these dates, monthly indicators were constructed characterizing the employment status of each respondent with the following values:

Full time (35 or more hours per week)
Part time (fewer than 35 hours per week)
Unemployed (includes unemployed with benefits and unemployed without benefits)
Out of the labor force (not looking for work)

Gender **(RSEX)**
B&B:93/94 respondents were asked their gender only if this information was missing from NPSAS and not obvious.

Male
Female

Marital status April 1994 **(MARSTAT)**
This variable was created using the marital status questions to determine respondent's marital status in April 1994.

Never married
Married/cohabit as married
Divorced/separated/widowed

Number of children **(CHILDREN)**
CHILDREN refers to a graduate's reported number of children, including adopted, foster, step children, and any children living outside his/her household.

No children
One child or more

***Parents' educational attainment* (PAREDUC)**

PAREDUC refers to the highest grade or level of education completed by either parent.

High school or less (includes less than high school, GED, high school graduation)
Some postsecondary education (includes less than 1 year, 1 year but less than 2 years, 2 years or more, less than 2 years of college, associate's degree, 2 or more years of college)
Bachelor's degree
Advanced degree (includes master's degree or equivalent, first professional degree, other advanced professional degree, doctorate (Ph.D, Ed.D))

***Race-ethnicity* (RETHNIC)**

This variable was created by combining two items in which respondents reported their race (American Indian, Asian, black, white, other) and whether they were of Hispanic origin.

American Indian/Alaskan Native
Asian/Pacific Islander
Black, non-Hispanic
Hispanic
White, non-Hispanic

Teaching-related characteristics

***Classes or students more difficult than others in school* (ASSIGNME)**

ASSIGNME provides a graduate's response to the following question, "The following questions refer to (your current/last) teaching job. (Is/Was) the workload given to you by your school (the students or classes you (teach/taught)) more difficult than those of other teachers at your school?" Responses were as follows:

Yes
No
Not sure

***Expects to be teaching in 2 years* (TCH2YRS)**

TCH2YRS was created to identify those graduates who answered "school teacher" (26) to question OCCIN2YR, "What do you expect your occupation will be two years from now?" Those respondents who reported that they had not taught or prepared to teach and were not considering teaching were coded as missing on TCH2YRS.

***Expects to be teaching in long term* (TCHLNGTM)**

TCHLNGTM identifies respondents who expected to be teaching in two years and whose long term career expectation was the same as their two-year expectation, and those who answered "school teacher" (26) to question OCCLNGTM "What do you expect your occupation will be in the long term?" As was TCH2YRS, TCHLNGTM was defined only for those graduates who had taught, prepared to teach, or at the time of the interview were considering teaching.

Highest teacher certification type (from all) **(HICERT)**

This variable identifies the highest teaching certification of all certifications held by the respondent. This composite was created using other composites, TCHCRT01-TCHCRT05, to get the highest type.

Other (includes advanced, other, emergency or temporary)
Probationary
Regular

Level of school at which taught **(ELLEVEL)**

ELLEVEL identifies the type of the school at which the respondent taught for the longest period of time since receiving the B&B BA.

Elementary
Secondary
Combined

Main field taught **(FIELD)**

This variable identifies a teacher's main teaching field. If a teacher taught in only one field, that field is his/her main field. If a teacher taught in more than one field, his/her main field is the one the teacher listed as his/her main field.

General elementary (includes general elementary and kindergarten)
English, reading (includes English, language arts; and reading)
Mathematics, computer science (includes computer science and mathematics)
Natural sciences (includes biology/life science, chemistry, geology/earth/space science, physics, and general and all other science)
Social studies
Bilingual, ESL, foreign languages (includes bilingual education, French, German, Latin, Spanish, other foreign languages, and English as a second language)
Fine or performing arts (includes art, dance, drama/theater, and music)
Vocational education (includes accounting, agriculture, business, marketing, health occupations, home economics, industrial arts, military science, technical, trade and industry, and other vocational education)
Special education (includes basic skills/remedial education, special ed. for deaf and hard of hearing, special ed. for emotionally disturbed, special ed. for mentally retarded, special ed. for severely handicapped, spec. ed. for specific learning disabil., special ed. for speech/language impaired, special ed.-general, and other special education)
Other (includes religion, physical education/health, prekindergarten field, and all other education

Participated in teacher induction program **(TCHTRAIN)**

This variable indicates whether a respondent reported participating in a teacher induction program during the first year of his/her most recent teaching job.

Reason for not applying: **(NEVAPP_)**

Respondents who indicated they had not applied for a teaching position since receiving the baccalaureate degree were asked "What are the reasons you did not apply for a teaching position?" Each of their responses was coded into one of the following categories:

Already had teaching job	(NEVAPP01)
Not interested in teaching	(NEVAPP02)
Needed more education	(NEVAPP03)
Not ready to apply	(NEVAPP04)
Teaching jobs hard to get	(NEVAPP05)
Discouraged by student teaching	(NEVAPP06)
More money in another job	(NEVAPP07)
More prestige in another occupation	(NEVAPP08)
Wanted other occupation	(NEVAPP09)
Low pay	(NEVAPP10)
Poor teaching conditions	(NEVAPP11)
Hadn't taken/passed test	(NEVAPP12)
Other reason	(NEVAPP13)

School helped with...

Respondents who had taught were asked whether the schools at which they most recently taught were effective in helping new teachers in each of the following areas:

Student discipline	(DISCIPLE)
Instructional methods	(INSTRUCT)
Curriculum	(CURRICUL)
Adjusting to school environment	(ADJUST)

Responses were made on a dichotomous (agree/disagree) scale.

Sector of school at which taught **(ELSECTOR)**

ELSECTOR identifies the sector of the school at which the respondent taught for the longest period of time since receiving the B&B bachelor's degree.

Public
Private

Status in teacher pipeline **(PIPELINE)**

PIPELINE was created using the variables TEACH, TEACHTRN, HICERT, TJOB, and B4DEGREE. TEACH, from the B&B:93/94 interview, was used to identify those respondents who had taught or prepared to teach at the preschool, elementary, or secondary level, or who were considering teaching at the time of the B&B:93/94 interview. TEACHTRN was used to determine whether respondents had completed student teaching at the NPSAS institution, and HICERT was used to determine whether respondents had received provisional, regular, or advanced certification to teach. TJOB and B4DEGREE were used to distinguish between those who had taught at the elementary or secondary level and those who had not. The five resulting PIPELINE categories are as follows:

0) Did not teach or prepare to teach and was not considering teaching at time of interview	Includes those respondents who had not taught or not prepared to teach (defined as having either completed student teaching at the NPSAS institution or earned provisional, regular, or advanced certification to teach) and at the time of the B&B:93/94 interview were not considering teaching
1) Was considering at time of interview but neither prepared nor taught	Includes those respondents who, at the time of the B&B:93/94 interview, were considering teaching but had neither prepared to teach nor taught
2) Did not prepare, taught	Includes those respondents who had taught but had not prepared to teach
3) Prepared but did not teach	Includes those respondents who had prepared to teach but had no taught
4) Prepared and taught	Includes those respondents who had prepared to teach and taught

For the purposes of this analysis, respondents who had taught before receiving the 1992-93 bachelor's degree or who had been certified one year or more before receiving the 1992-93 degree were eliminated from the sample using the variable TEACHUNV (see below) as a filter (where filter condition was TEACHUNV = 1). Then, TEACH (see below) and PIPELINE were used to create the following rows used in most of the tables presented in this report:

Not in teacher pipeline	TEACH = 0 (same as PIPELINE = 0)
In teacher pipeline	TEACH = 1
Nonteachers	PIPELINE = 1 or 3
Considering only	PIPELINE = 1
Prepared only	PIPELINE = 3
Taught	PIPELINE = 2 or 4

In tables 2 and C1.2, PIPELINE categories 3 and 4 were combined to identify those graduates who had prepared to teach.

***Taught or certified before receiving BA* (TEACHUNV)**

This composite identifies respondents who reported that they had not taught school prior to receiving the B&B bachelor's degree and that they had not been certified to teach one year or more before obtaining the B&B bachelor's degree. This variable was used to restrict the sample for this analysis to those graduates who could enter teaching for the first time.

Teaching filter variable (TEACH)
TEACH provides respondents' answers to the following question: "Have you ever trained or worked as a teacher at the preschool, grade school, or high school level, or are you currently considering teaching?" Those who answered "no" (TEACH=0) were considered outside the teacher pipeline (PIPELINE=0). Those who answered "yes" (TEACH=1) were further disaggregated in the PIPELINE variable. See entry "Status in the teacher pipeline" for further detail.

Took student teaching (TEACHTRN)
This variable, taken from student transcript data, identifies respondents who took at least one student teaching course as part of their work toward the 1992-93 bachelor's degree. This variable was used in this analysis to create the composite variable PIPELINE.

Whether accepted offer (ACCOFFER)
ACCOFFER indicates whether respondent reported accepting an offer for a teaching position.

Yes
No

Whether applied for teaching position (APPLICAT)
APPLICAT refers to respondents' reports of the number of applications for teaching positions they had submitted since graduation.

Whether offered teaching position (OFFERS)
OFFERS refers to graduates' reports of the number of offers for teaching positions they received.

Whether taught before receiving 1992-93 bachelor's degree (B4DEGREE)
Respondents who reported that they had taught or prepared to teach or that at the time of the B&B:93/94 interview they were considering teaching were asked, "Were you employed as a teacher by a school or district other than as a student or substitute teacher before completing your degree requirements?" B4DEGREE provides respondents' answers to this question and was used to develop both PIPELINE and TEACHUNV.

Whether taught since receiving 1992-93 bachelor's degree (TJOB)
Respondents who reported that they had taught or prepared to teach or that at the time of the B&B:93/94 interview they were considering teaching were asked: "Have you held any teaching jobs in a school since earning your degree? (Do not include student teaching, substitute teaching, tutoring, or teacher's aides)." TJOB provides respondents' answers to this question and was used to develop PIPELINE.

Characteristics important in future job

Job characteristics important in determining future work **(CHOICE_)**
For each of several job characteristics, respondents were asked whether the characteristic was important to them in determining the type of work they planned to do in the future. Possible responses were yes and no. Job characteristics are listed below:

Good starting income	(CHOICE02)
Good income potential	(CHOICE03)
Job security	(CHOICE04)
Prestige and status	(CHOICE05)
Interesting work	(CHOICE06)
Intellectually challenging work	(CHOICE07)
Freedom to make own decisions	(CHOICE08)
Interaction with people	(CHOICE09)
Ability to work independently	(CHOICE010)
Not having to move	(CHOICE011)
Time for non-work-related activities	(CHOICE012)

Appendix B

Technical Notes and Methodology

Baccalaureate and Beyond Longitudinal Study[2]

The Baccalaureate and Beyond Longitudinal Study (B&B:93) tracks the experiences of a cohort of college graduates who received the bachelor's degree during the 1992–93 academic year. This group's experiences in the areas of further education and degree completion, employment, public service, family formation, and other adult decisions will be followed for 12 years. B&B:93 will provide data to assess the outcomes of postsecondary education, including graduate and professional program access, labor market experience, and rates of return on investment in education.

Participants in the 1993 National Postsecondary Student Aid Study (NPSAS:93) who received their bachelor's degrees between July 1992 and June 1993 form the base sample for the B&B study. Approximately 12,500 NPSAS:93 respondents were identified as eligible for the first followup survey, which was conducted between July 1993 and December 1994 (roughly one year after participants' graduation). Approximately 1,500 members of this initial sample were determined to be ineligible at the time of the followup interview, and about 900 others were not interviewed (usually because they could not be located or refused to participate), generating a final interviewed sample of 10,080 college graduates. Table B1 shows the response rates for the survey according to gender, race, and age at degree receipt. As shown in the table, an overall response rate of 92 percent was achieved for the first followup survey.

The NPSAS:93 sample, while representative and statistically accurate, was not a simple random sample. Instead, the survey sample was selected using a more complex three-step procedure with stratified samples and differential probabilities of selection at each level. First, postsecondary institutions were initially selected within geographic strata. Once institutions were organized by zip code and state, they were further stratified by control (i.e., public, private not-for-profit, or private for-profit) and degree offering (less-than-2-year, 2- to 3-year, 4-year nondoctorate-granting, and 4-year doctorate-granting).[3] For more detailed information about the NPSAS:93 survey, refer to the *Methodology Report for the National Postsecondary Student Aid Study, 1992–93* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 1995). For more information on sampling procedures for the Baccalaureate and Beyond First Followup Study (B&B:93/94), consult the U.S. Department of Education, National Center for Education Statistics, *Baccalaureate and Beyond Longitudinal Study: 1993/94 Methodology Report*, NCES 96-149 (Washington, DC: July 1996).

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[2] The text in this section is based on excerpts from *Baccalaureate and Beyond Longitudinal Study: 1993/94 Methodology Report*, NCES 96-149 (U.S. Department of Education, National Center for Education Statistics, Washington, DC: July 1996).

[3] The NPSAS universe excludes institutions offering only correspondence courses, institutions enrolling only their own employees, and U.S. service academies.

Table B1—Percentage distribution of the 1993 Baccalaureate and Beyond (B&B:93/94) sample according to case disposition, by selected demographic characteristics: 1994

	Complete	Refused	Unlocatable	Other noninterview
Total	10,080	639	95	144
Age				
Under 23	2,689	11	4	4
23–29	5,764	458	64	111
30 or over	1,596	114	18	20
Missing	31	56	9	9
Gender				
Male	4,377	233	50	64
Female	5,703	405	45	80
Missing	0	1	0	0
Race				
American Indian	70	3	0	2
Asian/Pacific Islander	437	24	15	11
Black	628	28	9	10
White	8,710	525	62	97
Other/Missing	235	59	9	24

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94).

Transcript Data

The B&B:93/94 data collection included a student transcript study. Transcripts were sought for all B&B:93 sample members from the NPSAS sample institution from which they received their bachelor's degrees. Transcripts were requested from the NPSAS institution only. Credits that students received at other institutions were included in the B&B data only when supplied by the NPSAS institution. Ninety-nine percent of eligible NPSAS institutions responded, resulting in a student-level collection rate of 98 percent.

Institutions were also asked to provide course catalogs and information regarding their credit and grading systems. This information was used to categorize several parts of course records on the transcripts. Course catalogs allowed coders to classify courses within the College Course Map, a course classification system designed by the U.S. Department of Education.[4] Information on credit and grading systems allowed the normalization of credits and grades across institutions.

Accuracy of Estimates

The statistics in this report are estimates derived from a sample. Two broad categories of error occur in such estimates: sampling and non-sampling errors. Sampling errors occur because observations are made only on samples of students, not on entire populations. Nonsampling errors occur not only in sample surveys but also in censuses of entire populations.

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[4] U.S. Department of Education, Office of Educational Research and Improvement, *The New College Course Map and Transcript Files: Changes in Course-Taking and Achievement, 1972–1993* (Washington, DC: U.S. Government Printing Office), 1995.

Nonsampling errors can be attributed to a number of sources: inability to obtain complete information about all students in all institutions in the sample (some students or institutions refused to participate, or students participated but answered only certain items); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording or coding data; and other errors of collecting, processing, sampling, and imputing missing data.

Data Analysis System

The estimates presented in this report were produced using the B&B:93/94 Data Analysis System (DAS). The DAS software makes it possible for users to specify and generate their own tables from the B&B data. With the DAS, users can replicate, modify, or expand upon the tables presented in this report. In addition to the table estimates, the DAS calculates both standard errors appropriate for the study's complex sampling procedures and weighted sample sizes for these estimates.[5] For example, table B2 presents the standard errors that correspond to table C1.1 in the compendium, and table B3 presents standard errors for estimates presented in Table C4.1. If the number of valid cases is too small to produce a reliable estimate, the DAS prints the message "low-N" instead of the estimate.

In addition to generating tables, the DAS will also produce a correlation matrix of selected variables, which statistical software packages can use to estimate linear regression models. In addition to the correlation matrix, the DAS produces a table of design effects (DEFTs) for all the variables in the correlation matrix. Since most statistical software packages compute standard errors for regression coefficients based on an assumption of simple random sampling, the standard errors must be adjusted with the design effects to take the complex sample design into account.

For more information about the NCES B&B:93/94 Data Analysis System, contact:

Aurora D'Amico
National Center for Education Statistics
555 New Jersey Avenue, NW
Washington, DC 20208-5652

(202) 219-1365
Internet address: Aurora_D'Amico@ED.GOV

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[5] The B&B sample is not a simple random sample and, therefore, simple random sample techniques for estimating sampling error cannot be applied to these data. The DAS takes into account the complexity of the sampling procedures and calculates standard errors appropriate for such samples. The method for computing sampling errors used by the DAS involves approximating the estimator by the linear terms of a Taylor series expansion. The procedure is typically referred to as the Taylor series method.

Table B2—Standard errors for Table C1.1: Percentage of 1992–93 bachelor's[1] degree recipients who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by selected undergraduate academic and demographic characteristics: 1994

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Not prepared	Prepared only	Teachers
Total	0.62	1.43	1.11	1.14
Academic characteristics				
Entrance exam scores				
Available	0.75	1.62	1.09	1.41
Bottom quartile	1.42	2.95	2.22	2.35
Middle half	0.99	2.19	1.40	2.01
Top quartile	1.30	3.08	2.31	2.62
Unavailable	1.05	2.59	2.24	2.00
First postsecondary institution attended after high school				
Less-than-4-year	1.58	2.97	2.35	2.51
Public 4-year	0.88	2.08	1.71	1.71
Private not-for-profit 4 year	1.29	2.32	1.74	2.02
Ever taken remedial instruction				
Yes	2.07	3.67	2.77	2.88
No	0.67	1.59	1.22	1.33
Baccalaureate degree major				
Business and management	1.11	3.17	1.84	2.72
Education	1.68	1.61	2.20	2.28
Humanities	1.83	3.22	2.13	2.62
Mathematics, computer science, natural sciences	1.23	3.05	1.87	2.53
Social sciences	1.29	2.55	1.95	2.09
Other	1.21	3.39	2.61	2.76
Cumulative undergraduate GPA				
Less than 2.25	3.14	6.19	2.46	5.80
2.25–2.74	1.56	3.25	1.66	2.81
2.75–3.24	0.91	1.93	1.41	1.62
3.25–3.74	1.13	2.37	1.99	2.05
3.75 or higher	1.68	3.50	3.09	3.25
Undergraduate GPA in major				
Less than 2.25	3.70	7.27	3.67	6.56
2.25–2.74	2.30	4.20	1.75	3.85
2.75–3.24	0.88	1.99	1.27	1.73
3.25–3.74	1.17	2.52	1.90	2.21
3.75 or higher	1.33	2.61	2.56	2.55
Degree-granting institution				
Public nondoctorate-granting	1.21	3.00	2.70	2.05
Public doctorate-granting	0.93	2.13	1.44	1.92
Private not-for-profit nondoctorate-granting	1.44	3.21	2.00	2.38
Private not-for-profit doctorate-granting	1.90	3.49	2.76	2.95
Other	3.66	13.43	7.07	11.46

Table B2—Standard errors for Table C1.1: Percentage of 1992–93 bachelor's[1] degree recipients who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by selected undergraduate academic and demographic characteristics: 1994 —Continued

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Not prepared	Prepared only	Teachers
Credits earned toward bachelor's degree				
120 or fewer	1.30	3.24	2.23	2.71
121–135	0.90	2.01	1.38	1.63
136–150	1.34	2.78	2.37	2.35
More than 150	1.57	3.17	2.56	2.80
Years from postsecondary education entry to BA receipt				
4 years or less	0.99	2.18	1.59	2.00
More than 4, up to 5 years	1.18	2.61	1.93	2.04
More than 5, up to 6 years	1.78	3.75	2.76	3.26
More than 6 years	1.24	2.88	2.18	2.36
Enrollment status April 1994				
Not enrolled	0.67	1.63	1.28	1.30
Enrolled part time	2.22	4.47	3.53	4.15
Enrolled full time	1.65	3.49	2.94	2.78
Highest degree expected				
Bachelor's degree	1.07	3.97	3.43	2.37
Master's degree	0.77	1.74	1.43	1.44
First professional degree	1.75	4.72	2.38	4.15
Doctoral degree	1.46	2.56	1.85	2.24
Other degree	4.60	10.61	5.39	11.44
Demographic characteristics				
Gender				
Male	0.83	2.20	1.46	1.90
Female	0.88	1.74	1.45	1.49
Age received bachelor's degree				
22 or younger	0.85	1.82	1.32	1.59
23–24	1.16	2.62	1.85	2.27
25–29	1.59	3.54	2.15	3.42
30–39	1.96	4.02	4.34	2.87
40 or older	2.44	5.19	4.33	4.00
Race–ethnicity				
Nonwhite	1.63	3.01	1.67	2.87
American Indian/Alaskan Native	7.57	—	—	—
Asian/Pacific Islander	1.75	9.86	8.80	7.69
Black, non-Hispanic	2.75	4.39	1.36	4.20
Hispanic	2.74	4.24	2.52	4.62
White, non-Hispanic	0.66	1.56	1.20	1.25
Parents' educational attainment				
High school or less	1.11	2.37	2.05	2.01
Some postsecondary education	1.40	3.02	2.06	2.49
Bachelor's degree	1.10	2.50	2.23	2.28
Advanced degree	1.16	2.67	1.93	2.15

Table B2—Standard errors for Table C1.1: Percentage of 1992-93 bachelor's[1] degree recipients who entered the teacher pipeline; and of pipeline entrants, percentage distribution according to status in pipeline, by selected undergraduate academic and demographic characteristics: 1994 —Continued

	Percent entered teacher pipeline[2]	Of pipeline entrants		
		Not prepared	Prepared only	Teachers
Employment status April 1994				
Not in labor force	1.80	4.29	3.98	2.71
Unemployed	3.10	5.93	4.38	3.95
Working part time	1.69	3.07	2.79	2.56
Working full time	0.70	1.65	1.08	1.43
Marital status April 1994				
Never married	0.72	1.63	1.05	1.44
Married/cohabit as married	1.12	2.39	2.09	2.02
Divorced/separated/widowed	2.90	5.53	4.10	4.12
Number of children				
No children	0.66	1.50	1.09	1.27
One child or more	1.42	2.94	2.41	2.40

—Too few cases for a reliable estimate.

[1] Excludes those who either taught in elementary or secondary schools before receiving the 1992-93 bachelor's degree or had been certified to teach 1 year or more before receiving the 1992-93 bachelor's degree.

[2] Graduates were defined as having entered the teacher pipeline if they had first taught since receiving the 1992-93 bachelor's degree, prepared to teach during or since the 1992-93 degree, or were considering teaching at the time of the B&B:93/94 interview.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Table B3—Standard errors for table C4.1: Percentage distributions of 1992–93 bachelor's degree recipients who were new teachers according to level and sector of schools in which they taught, by selected undergraduate academic and demographic characteristics: 1994

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Total	2.02	2.02	2.40	2.40	0.98
Academic characteristics					
Entrance exam scores					
Available	2.67	2.67	2.73	2.71	1.26
Bottom quartile	3.15	3.15	5.05	4.96	1.68
Middle half	2.95	2.95	3.94	3.73	1.88
Top quartile	6.82	6.82	6.49	6.80	3.26
Unavailable	2.10	2.10	4.98	4.98	1.58
First postsecondary institution attended after high school					
Less-than-4-year	2.28	2.28	5.46	5.58	1.83
Public 4-year	3.16	3.16	3.20	3.23	1.02
Private not-for-profit 4-year	4.57	4.57	4.93	4.57	3.24
Ever taken remedial instruction					
Yes	5.30	5.30	6.09	5.45	3.72
No	2.07	2.07	2.57	2.58	1.03
Baccalaureate degree major					
Business and management	—	—	—	—	—
Education	2.12	2.12	2.53	2.49	1.24
Humanities	6.16	6.16	8.53	8.21	4.09
Mathematics, computer science, natural sciences	4.20	4.20	5.76	6.27	3.08
Social sciences	12.17	12.17	9.49	10.16	4.98
Other	—	—	—	—	—
Cumulative undergraduate GPA					
Less than 2.25	—	—	—	—	—
2.25–2.74	5.24	5.24	9.10	8.66	4.01
2.75–3.24	2.37	2.37	3.98	3.89	1.57
3.25–3.74	2.32	2.32	4.57	4.48	1.33
3.75 or higher	4.65	4.65	6.18	6.35	2.50
Undergraduate GPA in major					
Less than 2.25	—	—	—	—	—
2.25–2.74	—	—	—	—	—
2.75–3.24	2.59	2.59	4.33	4.43	1.93
3.25–3.74	2.75	2.75	4.03	3.94	1.74
3.75 or higher	3.13	3.13	4.74	4.74	1.57
Degree-granting institution					
Public nondoctorate-granting	2.17	2.17	4.27	4.30	1.36
Public doctorate-granting	3.77	3.77	3.82	3.90	1.04
Private not-for-profit nondoctorate-granting	4.86	4.86	5.53	4.62	3.11
Private not-for-profit doctorate-granting	7.14	7.14	7.39	7.58	6.25
Other	—	—	—	—	—
Credits earned toward bachelor's degree					
120 or fewer	7.01	7.01	6.04	6.28	3.91
121–135	2.89	2.89	3.85	3.81	1.69
136–150	2.81	2.81	4.71	4.57	1.07
More than 150	3.17	3.17	4.98	5.08	1.62

Table B3—Standard errors for table C4.1: Percentage distributions of 1992–93 bachelor's degree recipients who were new teachers according to level and sector of schools in which they taught, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Years from postsecondary education entry to BA receipt					
4 years or less	5.33	5.33	4.70	4.90	2.52
More than 4, up to 5 years	2.87	2.87	4.57	4.43	1.48
More than 5, up to 6 years	3.24	3.24	7.94	7.94	0.00
More than 6 years	1.98	1.98	4.72	4.67	1.57
Enrollment status April 1994					
Not enrolled	2.22	2.22	2.72	2.70	1.04
Enrolled part time	5.14	5.14	7.89	8.13	3.79
Enrolled full time	5.57	5.57	9.88	9.93	3.36
Highest degree expected					
Bachelor's degree	4.21	4.21	7.61	6.80	4.32
Master's degree	1.90	1.90	2.80	2.80	1.07
First professional degree	—	—	—	—	—
Doctoral degree	4.07	4.07	6.37	6.25	2.36
Other degree	—	—	—	—	—
Demographic characteristics					
Gender					
Male	3.39	3.39	5.30	5.31	1.42
Female	2.37	2.37	2.53	2.46	1.24
Age received bachelor's degree					
22 or younger	3.84	3.84	3.31	3.40	1.79
23–24	2.39	2.39	5.31	5.10	1.85
25–29	2.41	2.41	6.36	6.51	2.29
30–39	2.85	2.85	4.78	4.51	1.78
40 or older	—	—	—	—	—
Race–ethnicity					
Nonwhite	2.83	2.83	7.40	7.29	1.63
American Indian/Alaskan Native	—	—	—	—	—
Asian/Pacific Islander	—	—	—	—	—
Black, non-Hispanic*	—	—	—	—	—
Hispanic	4.38	4.38	7.19	7.19	0.00
White, non-Hispanic	2.25	2.25	2.58	2.60	1.10
Parents' educational attainment					
High school or less	2.50	2.50	4.14	4.15	1.22
Some postsecondary education	4.78	4.78	5.54	5.49	2.40
Bachelor's degree	4.37	4.37	5.21	5.03	2.66
Advanced degree	2.72	2.72	4.86	4.81	1.93
Employment status April 1994					
Not in labor force	—	—	—	—	—
Unemployed	—	—	—	—	—
Working part time	3.46	3.46	6.39	6.30	1.82
Working full time	2.41	2.41	2.70	2.72	1.18

Table B3—Standard errors for table C4.1: Percentage distributions of 1992-93 bachelor's degree recipients who were new teachers according to level and sector of schools in which they taught, by selected undergraduate academic and demographic characteristics: 1994—Continued

	Sector of school		Level of school		
	Public	Private	Elementary	Secondary	Combined
Marital status April 1994					
Never married	3.14	3.14	3.36	3.35	1.58
Married/cohabit as married	1.80	1.80	3.57	3.66	1.14
Divorced/separated/widowed	—	—	—	—	—
Number of children					
No children	2.51	2.51	2.72	2.72	1.25
One child or more	2.07	2.07	5.25	5.28	1.29

—Too few cases for a reliable estimate.

*Although 33 percent of black, non-Hispanic graduates entered the pipeline, only 20 percent taught, so tables that include only teachers have too few black, non-Hispanics to report estimates.

NOTE: Details may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study First Followup (B&B:93/94), Data Analysis System.

Statistical Procedures

Since the estimates in this report are based on a sample, observed differences between two estimates can reflect either of two possibilities: differences that exist in the population at large and are reflected in the sample, or differences due solely to the composition of the sample that do not reflect underlying population differences. To minimize the risk of erroneously interpreting differences due to sampling alone as signifying population differences (a Type I error), the statistical significance of differences between estimates was tested using Student's t statistic. Differences between estimates were tested using the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

where E_1 and E_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors. Note that this formula is valid only for independent estimates. When the estimates were not independent, (for example, when making comparisons within a percentage distribution), a covariance term was added to the denominator. Differences were judged to be statistically significant when the value of t was sufficiently large that the probability of a Type I error was no more than 5 percent (a significance level of .05). This procedure involved calculating Student's t for the difference between the means or proportions of interest, then comparing this value with published tables of critical values of t corresponding to a two-tailed hypothesis test with a significance level of .05.

There are hazards in reporting statistical tests for each comparison. First, comparisons based on large t statistics may appear to merit special attention. This can be misleading since the magnitude of the t statistic is related not only to the observed differences in means or percentages but also to the number of students in the categories under comparison. Hence, a small difference between two large groups would produce a large t statistic.

A second hazard in reporting statistical tests for each comparison occurs when making multiple comparisons among categories of a single variable. For example, when making paired comparisons among different undergraduate fields of study, the probability of a Type I error for these comparisons taken as a group is larger than the probability for any single comparison. When more than one difference between groups of related characteristics or "families" are tested for statistical significance, one must apply a standard that assures a level of significance for all of those comparisons taken together.

Comparisons were made in this report only when $p \leq .05 \div k$ for a particular pairwise comparison, where that comparison was one of k tests within a family. This guarantees both that the individual comparison would have $p \leq .05$ and that for k comparisons within a family of possible comparisons, the significance level for all the comparisons will sum to $p \leq .05$.[6]

For example, in a comparison of the percentages of males and females who enrolled in postsecondary education only one comparison is possible (males versus females). In this family, $k=1$, and the comparison can be evaluated without adjusting the significance level. When students are divided into five racial-ethnic groups and all possible comparisons are made, then $k=10$ and the significance level of each test must be $p \leq .05 \div 10$, or $p \leq .005$. The formula for calculating family size (k) is as follows:

$$k = \frac{j x (j-1)}{2}$$

where j is the number of categories for the variable being tested. In the case of race-ethnicity, there are five racial-ethnic groups (American Indian, Asian/Pacific Islander, black non-Hispanic, Hispanic, and white non-Hispanic), so substituting 5 for j in equation 2,

$$k = \frac{5 x (5-1)}{2} = 10$$

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[6] The standard that $p \leq .05/k$ for each comparison is more stringent than the criterion that the significance level of the comparisons should sum to $p \leq .05$. For tables showing the t statistic required to ensure that $p \leq .05/k$ for a particular family size and degrees of freedom, see Olive Jean Dunn, "Multiple Comparisons Among Means," *Journal of the American Statistical Association* 56: 52–64.

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